



THE
ENVIRONMENT
PARTNERSHIP



GREEN AND BLUE INFRASTRUCTURE, BIODIVERSITY AND OPEN SPACE STUDY

LONDON BOROUGH OF MERTON

SUMMARY REPORT

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1.0 Executive Summary

- 1.1 TEP was commissioned by the London Borough of Merton (the Council) to assess the borough's green and blue infrastructure, biodiversity and open spaces and provide an evidence base document to inform the preparation and implementation of the new Local Plan.
- 1.2 The study assesses the quantity, accessibility, quality and value of open spaces throughout the borough and has been carried out in line with guidance on both a national and London level.
- 1.3 The objectives of the study were to:
 - Evaluate the quantity, quality, value and accessibility of different types of open space and green infrastructure throughout the borough;
 - Identify any specific needs or areas of deficiency in access to green and open space and nature conversation areas and how these deficiencies should be addressed;
 - Determine the impact of projected population changes across the borough and housing intensifications in the identified growth areas and other small sites, on open spaces;
 - Identify any areas of open space and nature conservation areas that are surplus to requirements, and in accordance with agreed criteria, any areas that have potential to be designated as Local Open Space and/or Metropolitan Open Land;
 - Undertake a biodiversity assessment of the borough's Sites of Importance for Nature Conservation (SINCs) and identify any special protection green areas of local importance;
 - Support the borough's health and wellbeing priorities as set out in Merton's Health and Wellbeing Strategy;
 - Undertake consultation with user groups in the borough to determine perceptions of Merton's open spaces and priorities for the future; and
 - Provide information that can be used to underpin the preparation and implementation of new Local Plan policies and the revised Infrastructure Delivery Plan (IDP) and support the future management of green, open and recreational spaces.
- 1.4 The study is aligned with other evidence base documents including the Playing Pitch Strategy (2019) and the Health and Wellbeing Strategy (2019) and will support the preparation of the Infrastructure Delivery Plan (IDP). In turn, this will aid in the justification of future development contributions and the collection and spending of the Community Infrastructure Levy (CIL).
- 1.5 The summary report and the set of accompanying technical reports set out the findings of the assessment and provide recommendations and a set of priorities for how the vision for green and blue infrastructure can be delivered in Merton.

Context of the Summary Report

- 1.6 This summary report has been informed by a number of technical assessments and associated reports as part of the overall Green and Blue Infrastructure, Biodiversity and Open Space Study, as shown in Figure 1.

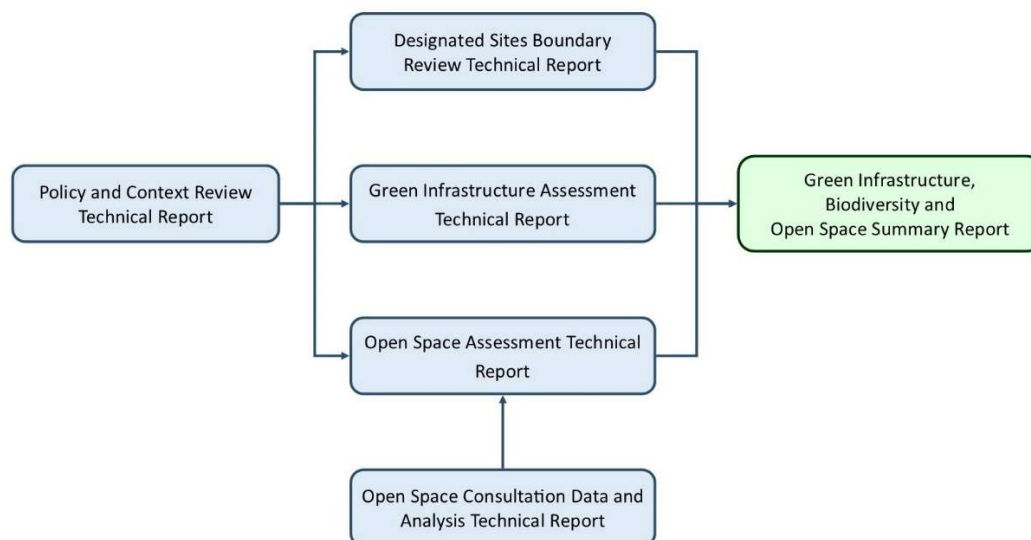


Figure 1: Merton Green and Blue Infrastructure, Biodiversity and Open Space Study

Summary Report Structure

- 1.7 Chapter 2 sets out the Vision for Green and Blue Infrastructure, Biodiversity and Open Space in Merton, against the following headings:
- A Greener Place
 - A Well-Connected Place
 - A Place for Wildlife
 - A Happy Place
 - A Forward-Looking Place
 - Celebrating Our Place
- 1.8 Chapter 3 sets out the Benefits, Challenges and Opportunities for Merton, including summarising the 2018 General Assessment of London's Environment (Appendix 1 of the London Environment Strategy), from which key messages are included for:
- Air Quality
 - Open Spaces
 - Biodiversity
 - The Urban Forest
 - Rivers and Water Quality
 - Climate Change
- 1.9 Chapter 4 includes a brief summary of the methods, findings and recommendations from the Technical Assessments and Reports as follows:
- Policy and Context Review
 - Designated Sites Boundary Review

- Open Space Assessment
 - Open Space Consultation
 - Green and Blue Infrastructure Assessment
- 1.10 Chapter 5 covers Priorities for green and blue infrastructure, which are derived from Merton's strategic objectives; the emerging Merton Local Plan; the Greater London Plan; the Mayor's London Environment Strategy; and the All London Green Grid.
- 1.11 The priorities for Merton are:
- Promoting Physical and Mental Health and Wellbeing
 - Adapting to Climate Change and the Urban Heat Island Effect
 - Supporting Housing Growth and Quality of Life
 - Supporting Economic Growth and Investment
 - Improving Air and Water Quality
 - Encouraging Walking and Cycling
 - Supporting Landscape and Heritage Conservation
 - Supporting Learning about the Environment
 - Supporting Food-growing
 - Conserving and Enhancing Biodiversity and Ecological Resilience
- 1.12 Chapter 6, Delivery sets out ways to deliver the Vision for Green and Blue Infrastructure, Biodiversity and Open Space. This is set out in six delivery areas, each relating back to the Vision:
- Enhancing our Assets (A Greener Place)
 - Accessing our Spaces (A Well Connected Place)
 - Wildlife & Biodiversity Value (A Place for Wildlife)
 - Healthy Spaces (A Happy Place)
 - Protecting Spaces for Future Communities (A Forward Looking Place)
 - Celebrating our Environments (Celebrating our Place)

2.0 Vision for Merton's Green and Blue Infrastructure

- 2.1 Good quality and valued open spaces make a significant contribution to the health and wellbeing of the local Merton residents. They also contribute to social cohesion, promote cultural heritage and mitigate some of the impacts of a changing climate.
- 2.2 As one of the greenest boroughs in London, Merton's broad range of parks, open spaces and nature conservation areas are worth £2.5 billion¹ in terms of the benefits they bring for health and wellbeing, property values, water quality improvements and carbon storage.
- 2.3 As an outer London borough, Merton has a wealth of green open spaces including Mitcham, Wimbledon and Cannon Hill Commons, Morden Hall Park, Morden Park and Ravensbury Park. The Wandle Valley Regional Park, one of the greatest networks of open space in London, also runs through the centre of Merton providing a suburb leisure and nature feature for residents and visitors to enjoy.
- 2.4 Every summer the eyes of the world are on Merton, as the host of the Wimbledon Championships, one of the biggest sporting events on the planet. Green infrastructure is an essential part of the setting of the tournament as millions of TV viewers see the stars being interviewed against the backdrop of the famous green wall at the All England Lawn Tennis Club.
- 2.5 Over the next 15 years, the population and housing growth will place pressure on the open spaces and it will be important that health and wellbeing is embedded into all aspects of development.
- 2.6 Tackling the effects of climate change will remain a challenge; one that the Council has placed at the forefront of its agenda by declaring a climate emergency in 2019 and setting ambitious carbon reduction targets to make Merton carbon neutral by 2050.
- 2.7 This vision below sets out how and why green and blue infrastructure can be enhanced throughout the borough; a vision for the entire community to take forward together.

A Greener Place

- 2.8 The provision of **new and affordable homes** and infrastructure is a key part of future growth in the borough. To support good growth, the existing green and blue infrastructure should be maintained and enhanced to ensure that new development helps to make the borough greener. Aiming for and achieving '**net environmental gain**' will bring many benefits through ensuring that new development creates proud civic places and high quality **public realm** for residents to enjoy with biodiverse trees, planters, green roofs and walls.

¹ Natural Capital Accounts for Public Green Space in London (Vivid Economics, October 2017)

- 2.9 Net environmental gain is an important feature as a **changing climate** brings problems of heat, drought and flood risk; all posing direct risks to people, property and vegetation. The past century of urbanisation has resulted in incremental losses of local vegetation and the sealing over of natural ground surfaces, which has made towns more vulnerable to heatwaves and to flash floods at times of high rainfall. The reversal of this process can begin by making grey areas greener.

A Well-Connected Place

- 2.10 Merton is very well connected and will become more so with the arrival of **rail infrastructure** improvements to Crossrail 2 and the Northern Line. Connectivity is great but **traffic congestion** is a major concern as it lowers **air quality** and fragments the urban environment for those seeking to walk and cycle. Green and blue infrastructure provides a place to escape from the hustle and bustle so it is important that major parks are diverse and inclusive places where there is something for everyone and people can experience nature.
- 2.11 Equally it is vital that main roads and town centres are greener and calmer than they are at present. Green infrastructure helps calm traffic flows and makes a small but useful contribution to air quality. It's also important to have good **walking and cycling** connections across the borough, with footpaths and cycleways integrated into parks and open spaces.

A Place for Wildlife

- 2.12 Wildlife and trees are under massive threat from climate change. Summer droughts, and pests and diseases are placing trees under great stress. Insect life on the planet is under great threat from habitat loss and pesticides. Yet urban areas can actually be an oasis for wildlife if we use parks, civic spaces and private gardens to plant **native trees** and create **orchards and meadows** to improve the **resilience** for future generations.

A Happy Place

- 2.13 It is well understood that **mental and physical well-being** relies on a regular '**dose of nature**'. Even walking along a tree-lined street can lift the spirit. To counter the stresses of modern life, parks should be attractive and safe for all ages and all groups of society and have something for everyone to enjoy. Going beyond this parks and open spaces should be places for active **learning, healing and volunteering**. Through activities such as **social prescriptions and green gyms** local residents can become more engaged in the use of local parks.
- 2.14 Not everyone can get to a park on a daily basis, but almost everyone does go to the shops regularly. Through making town centres attractive with trees and pockets of greenery, more people will be able to receive a daily dose of nature.

A Forward-Looking Place

- 2.15 Future generations will rely on investment in green and blue infrastructure today. Part of the vision for the borough should be to **involve every young person** in tree-planting, food-growing, outdoor exercise and learning about nature, so they can understand how they can **positively shape their own environments**.

Celebrating our Place

- 2.16 As Merton is one of the greenest boroughs in London, it makes a proud contribution to London as a **National Park City** and should continue to enable and encourage residents, local businesses and visitors to the borough to enjoy green and blue spaces.

3.0 Benefits, Challenges and Opportunities

Benefits

- 3.1 Government guidance on green infrastructure² provides a useful context for demonstrating the environmental, social and economic benefits, or 'ecosystem services'.

What can green infrastructure include?

Green infrastructure can embrace a range of spaces and assets that provide environmental and wider benefits. It can, for example, include parks, playing fields, other areas of open space, woodland, allotments, private gardens, sustainable drainage features, green roofs and walls, street trees and 'blue infrastructure' such as streams, ponds, canals and other water bodies.

Why is green infrastructure important?

Green infrastructure is a natural capital asset that provides multiple benefits, at a range of scales. For communities, these benefits can include enhanced wellbeing, outdoor recreation and access, enhanced biodiversity and landscapes, food and energy production, urban cooling, and the management of flood risk. These benefits are also known as ecosystem services.

What planning goals can green infrastructure help to achieve?

Green infrastructure can help in:

- *Building a strong, competitive economy;*
- *Achieving well-designed places;*
- *Promoting healthy and safe communities;*
- *Mitigating climate change, flooding and coastal change; and*
- *Conserving and enhancing the natural environment.*

- 3.2 In addition, the emerging Green Infrastructure Policy for the new London Plan³ acknowledges that green and blue infrastructure meets multiple objectives, alongside traditional functions such as space for play, sports and recreation, including:

- Mental and physical health;
- The heat island effect;
- Air and water quality;
- Landscape and heritage conservation; and
- Learning about the environment.

Challenges and Opportunities

- 3.3 The 2018 General Assessment of London's Environment (which forms Appendix 1 of the London Environment Strategy⁴) sets out the London wide challenges. These have been summarised in this chapter, followed by the opportunities for Merton.

² <https://www.gov.uk/guidance/natural-environment>

³ <https://www.london.gov.uk/what-we-do/planning/london-plan/new-london-plan>

⁴ <https://www.london.gov.uk/what-we-do/environment/london-environment-strategy>

3.4 The challenges and opportunities are set against the following topics:

- Air Quality
- Open Spaces
- Biodiversity
- The Urban Forest
- Rivers and Water Quality
- Climate Change

Air Quality

London wide Challenges

3.5 Significant numbers of people across London live in areas exposed to levels of particulate and nitrogen dioxide that exceed legal limits. The adverse exposure is greatest in the poorest areas, meaning that the problem can often reflect social inequalities.

3.6 Whilst the problem can only be fully addressed through reduction in harmful emissions, green and blue infrastructure has a small role to play through absorption of some particulates on foliage and by providing open spaces for recreation and active travel that are relatively distant from road traffic.

Opportunities for Merton

3.7 There are opportunities for new development throughout Merton to include tree-planting, urban greening and sustainable drainage systems in order to mitigate air quality problems on transport corridors, water quality problems and local flooding in built-up areas and to increase shade.

Open Spaces

London wide Challenges

3.8 An increasing population will mean additional demand for access to open space and Sites of Importance for Nature Conservation. This is set against a baseline situation where there are many communities still experiencing deficiencies in access to open space, with the consequential threats to mental health that arise from lack of exposure to nature.

3.9 Local authority parks maintenance budgets are being reduced, potentially leading to reductions in quality and security; albeit partly compensated by an increase in creative means of revenue-generation and greater involvement of local communities.

Opportunities for Merton

3.10 Merton's parks and open spaces deliver exceptional value for money, in terms of the natural capital value they provide. Maintenance budgets will remain under pressure, but the increase in population offers an opportunity to generate more revenue and drive development-related funds towards essential improvements in park quality and accessibility. Continued advocacy of the value of parks is essential to maintain political and community support.

Biodiversity

London wide Challenges

- 3.11 Some recovery of wildlife has occurred, notably amongst breeding birds and fish, but there is evidence of continued decline of sensitive species and habitats across London.
- 3.12 Sites of Importance for Nature Conservation are no longer being systematically monitored across London. Whilst they enjoy good policy protection from adverse effects of development, they are at risk of decline through lack of management. About 500 of London's SINC's do not receive regular management, making them more vulnerable to pests and loss of the habitats that are of particular value.
- 3.13 Sites of Special Scientific Interest enjoy strong policy protection and generally are under a management regime. Wimbledon Common SSSI is an area of lowland acid grassland and dwarf shrub heath and deciduous woodland.
- 3.14 Research for the London Plan⁵ found that there is a London-wide need for an increase in quantity and quality of certain habitats, the "Big Four" being species-rich woodland, flower-rich grassland, rivers and streams and reedbeds. The greener outer London boroughs, such as Merton, are seen as most appropriate for new woodland planting and conversion of patches of amenity grassland to a pollinator-friendly grassland sward. Improvement of river, stream and reedbed habitat can be opportunistic based on improvements to existing waterbodies and floodplains.
- 3.15 The report also noted that there is a London-wide problem with inconsistent and patchy baseline data on extent and quality of habitats, which makes target-setting and biodiversity action planning difficult. This applies to Merton, where the formulation of this study has been hampered by inconsistent mapping of grassland and woodland cover.

Opportunities for Merton

- 3.16 There are many opportunities in the borough for residents, developers, housing associations and the council to take a lead in biodiversity enhancements on private and public land, housing estates, local parks and open spaces. Some examples include pollinator-friendly meadows, tree-planting, green walls, green and blue roofs and rain gardens which can have multiple benefits including enhanced biodiversity, the provision of additional green spaces for enjoyment and mitigating against air pollution.

The Urban Forest

London wide Challenges

- 3.17 London's urban tree cover is estimated to be 20%⁶. The city's overall tree population is expected to gradually rise as a result of planning policy to increase tree planting during new developments, alongside local authority and resident initiatives.

⁵ https://www.london.gov.uk/sites/default/files/gla_habitat_targets_report_-_lwt_-_march2017.pdf

⁶ London Environment Strategy (GLA, 2018) <https://www.london.gov.uk/what-we-do/environment/london-environment-strategy>

- 3.18 Nevertheless the London Environment Strategy sets an ambitious target of a 10% increase in overall tree canopy, reflecting that several species of tree are at risk from pests and disease e.g. ash dieback, oak processionary moth, chestnut blight.

Opportunities for Merton

- 3.19 Although Merton has an overall tree canopy cover that is greater than the London average, a sustained expansion of the urban forest through new tree and woodland planting is essential. This is needed to address ongoing biodiversity declines, increase resilience of the urban forest to pests and diseases, increase shade and tackle climate change.

Rivers and Water Quality

London wide Challenges

- 3.20 London's rivers have been very badly affected by historic pollution and ongoing problems with bank and channel modifications, over-engineering, fish barriers and diffuse and point source pollution. Although there have been some local restoration projects, overall there has been little improvement, and possibly some decline in water quality and habitat condition in London's rivers. Addressing the requirements and meeting the objectives of the Water Framework Directive is an important element for London's rivers.

Opportunities for Merton

- 3.21 The Wandle and Beverley Brook catchments are critical pieces of London's blue infrastructure so delivery of river restoration projects, habitat creation projects, increases of permeable surfaces and management of surface water flood risk are critical for improving water quality and reducing flood risk. This will also help meet Water Framework Directive requirements for restoration of good ecological potential.

Climate Change

London wide Challenges

- 3.22 Climate change will exacerbate the "urban heat island" effect across most of London. Whilst the temperature effects will be most marked in inner London, the greatest mortality risk is likely to be on elderly populations in the outer London boroughs, due to the increased vulnerability to heat-related physiological problems associated with age.
- 3.23 Predicted increases in frequency and intensity of rainstorms mean there will be more chance of local flood disruption due to stream, river and sewer/drain blockages (fluvial and pluvial flooding). This is a particular problem where the sewer system is at or near full capacity, in floodzones 2 and 3 and in areas where there is a high proportion of impermeable surfaces.

Opportunities for Merton

- 3.24 Mitigation measures for an increase in temperature includes increased tree planting to create shade, reduction in sealed surfaces which can “bounce” radiated heat back into the urban environment and greater provision of parks which remain cooler than surrounding urban areas.
- 3.25 Mitigation measures for flooding include the use of sustainable drainage systems in new development and by retrofitting in built-up areas, increased tree-planting and the creation of swales along fluvial and surface water flowpaths. Swales can also be created anywhere there is sufficient space. Further guidance on sustainable drainage design can be found in the Merton SPD on Sustainable Drainage and Design (2020)⁷.

⁷ <https://www.merton.gov.uk/streets-parking-transport/streets-and-pavements/surface-water-drainage-and-suds>

4.0 Findings and Recommendations

4.1 This chapter provides a summary of the findings from the technical assessments and associated reports. It provides a focus for identifying where action is needed to safeguard, manage and/or enhance Merton's green spaces. Recommendations are also made for areas that can be reviewed through the new Local Plan. The following reports are summarised:

- Policy and Context Review
- Designated Sites Boundary Review
- Open Space Assessment
- Open Space Consultation
- Green and Blue Infrastructure Assessment

Policy and Context Review Technical Report Summary

4.2 The following paragraphs summarise the Policy and Context Review Technical Report. The full report includes a more detailed policy review, including comparing adopted and emerging policies, such as for the new London Plan.

National Planning Policy Framework (NPPF)

4.3 The National Planning Policy Framework (NPPF, 2019⁸) sets out the Government's planning policies and how these should be applied. NPPF paragraph 96 sets out that *'planning policies should be based on robust and up-to-date assessments of the needs for open space, sport and recreation facilities (including quantitative or qualitative deficits or surpluses) and opportunities for new provision.'*

4.4 Strategic Policies of the NPPF (paragraph 20) also state that sufficient provision should be made for the *'conservation and enhancement of the natural, built and historic environment, including landscapes and green infrastructure, and planning measures to address climate change mitigation and adaptation'*.

London Plan

4.5 The London Plan is an overall strategic plan for London, setting out an integrated economic, environmental, transport and social framework for the development of London over the next 20-25 years. It provides policies of a strategic importance for Greater London, with a focus on three main themes.

- Economic development and wealth creation;
- Social development; and
- Improvements of the environment.

4.6 The new London Plan⁹ will run from 2020-2041 replacing the current adopted London Plan (2016). The new London Plan focuses on 'good growth', which means growth which is socially and economically inclusive and environmentally sustainable. Chapter 1 'Planning London's Future' covers six good growth policies. These are:

- Policy GG1 Building strong and inclusive communities;

⁸ <https://www.gov.uk/guidance/national-planning-policy-framework>

⁹ <https://www.london.gov.uk/what-we-do/planning/london-plan/new-london-plan>

- Policy GG2 Making the best use of land;
- Policy GG3 Creating a healthy city;
- Policy GG4 Delivering the homes Londoners need;
- Policy GG5 Growing a good economy; and
- Policy GG6 Increasing efficiency and resilience.

4.7 All of these policies are broadly relatable to green infrastructure, open space and biodiversity, but in particular GG2 'Making the best use of land' supporting text states:

Existing green space designations will remain strong to protect the environment, and improvements to green infrastructure, biodiversity and other environmental factors, delivering more than 50 per cent green cover across London, will be important to help London become a National Park City.

London Public Green Space Natural Capital Account (2017)

4.8 This report, published by the Mayor in 2017 highlights the economic value and benefits provided by public parks and green spaces.

4.9 In line with this report, Merton's publicly accessible major greenspaces have a natural capital value of £2.5bn¹⁰. This value arises from avoided healthcare costs (£464m), provision of recreation opportunities (£453m), carbon sequestration (£5m), temperature regulation (£14m) and property value (£1.62bn).

4.10 Merton's major greenspaces thus provide £657 value per year to each Merton resident. This is a benefit to cost ratio of 31:1, based on estimated expenditure by the borough on parks maintenance.

4.11 The borough-wide natural capital account is conservative for two reasons; firstly it excludes the value of biodiversity and air quality regulation which could not be monetised at the time of the study. Secondly, it covers only the major greenspaces (1053Ha), whereas it would be expected that smaller greenspaces, street trees, verges, institutional grounds and other non-garden green and blue infrastructure (474Ha) will also provide natural capital value.

London National Park City

4.12 The London National Park City is a movement to improve life in London by encouraging people to enjoy being outdoors more and helping to make London greener, healthier and wilder.

4.13 This movement encourages residents, visitors and partners to:

- Enjoy London's great outdoors more: Connecting more people to nature and the outdoor culture, improving health, well-being and social cohesion.
- Make the city greener, healthier and wilder: Creating more high quality green and blue space, making London over 50% green and blue, delivering improvements for wildlife, people's enjoyment and an attractive and sustainable environment for visiting, living and working in.

¹⁰ Natural Capital Accounts for Public Green Space in London (Vivid Economics, 2017 for National Trust and Mayor of London)

- Promote London's identity as a National Park City: Helping residents and visitors to appreciate its value and potential for a rich cultural life anchored in its outdoor heritage.

Merton's Local Plan

- 4.14 The Local Plan¹¹ sets out vision and policies to guide future development in the borough. The statutory development plan comprises the Core Strategy (2011), Site and Policies Plan (2014), the South London Waste Plan (2012) and the Estates Local Plan (2018).
- 4.15 A new Local Plan is being prepared¹², and the Stage 2 Consultation Draft was consulted on between October 2018 and January 2019.

Core Strategy

- 4.16 Merton's Core Strategy (2011) is the key document in the Local Development Framework that sets out the spatial strategy for the borough and key elements of the planning framework. It includes Policies such as Policy CS5, which identifies the Wandle Valley as a key green infrastructure opportunity on a regional and local level and Policy CS13, which sets out the aims and objectives for open space, nature conservation, leisure and culture in the borough.

Sites and Policies Plan

- 4.17 Policy DM01 Open Space of the Sites and Policies Plan (2014) aims to protect and enhance open space and improve access to open space. Policy DM02 aims to protect and enhance biodiversity including trees and hedges, particularly on sites of recognised nature conservation interest.

Estates Local Plan

- 4.18 Merton's Estates Local Plan adopted in 2018, contains detailed planning policies, which guide development on three estates in Merton; Eastfields (Mitcham), High Path (South Wimbledon) and Ravensbury (Mitcham/Morden). The key drivers for the plan include providing opportunities to improve parks and landscaped areas within the identified areas to create sustainable neighbourhoods.

Designated Sites Boundary Review Technical Report Summary

- 4.19 Land in Merton is currently designated for a number of open space and biodiversity purposes through the Sites and Policies Plan and Maps (2014):
- Metropolitan Open Land (MOL)
 - Open Space
 - Sites of Special Scientific Interest (SSSI)
 - Local Nature Reserves (LNR)
 - Sites of Importance for Nature Conservation (SINC)
 - Green Corridors

¹¹ <https://www.merton.gov.uk/planning-and-buildings/planning/local-plan>

¹² <https://www.merton.gov.uk/planning-and-buildings/planning/local-plan/newlocalplan>

- 4.20 The full accompanying technical report details boundary reviews including proposed additions and omissions for sites designated under the Local Plan.
- 4.21 Sites designated as MOL, Open Space, SINC and Green Corridors have been reviewed. The criteria for these designations is detailed in the technical report, including where there are differences between the adopted and emerging London Plan. Open Space designation criteria form part of Merton's Local Plan, therefore as part of the emerging Local Plan process, the technical report provides a review and makes recommendations for updating the criteria for Open Space.
- 4.22 The report does not review SSSI and LNR as these are both national designations which are under the jurisdiction of Natural England.

Open Space Designations

Metropolitan Open Land

- 4.23 Merton has 9 designated areas of MOL, which cover an area of 960Ha (26% of the borough). The largest areas of MOL are Wimbledon Common and Mitcham Common, which together account for over 55% of the designation area. MOL is also found in the Wandle Valley, Morden Park, Lower Morden and Cannon Hill.

Open Space

- 4.24 Merton's adopted Sites and Policies Plan (2014¹³) defines Open Space as:

All the land that is predominantly undeveloped, other than by buildings or structures that are ancillary to the open space use, and bodies of water that are indicated as open space on Merton's Policies Map. The definition covers a broad range of types of open space within Merton, whether in public or private ownership and whether public access is unrestricted, limited or restricted.

- 4.25 This includes all open spaces within the borough such as parks, commons, play grounds, sports fields, allotments, cemeteries and churchyards, urban farms and woodlands.

Biodiversity Designations

Sites of Special Scientific Interest

- 4.26 SSSI are designated by Natural England under the Wildlife and Countryside Act 1981, as amended. SSSIs are the finest sites for wildlife and natural features in England, supporting many characteristic, rare and endangered species, habitats and natural features.

¹³ <https://www2.merton.gov.uk/environment/planning/planningpolicy/localplan/sitesandpoliciesplan.htm>

- 4.27 Wimbledon Common is Merton's only SSSI¹⁴, designated for its wide expanse of wet heath on acidic soil, which also supports a number of ecological communities which are uncommon in London. Wimbledon Common is also designated as a Special Area of Conservation (SAC) for its role as a habitat for the Stag Beetle *Lucanus cervus* (JNCC, 2019)¹⁵.

Local Nature Reserves

- 4.28 Local Nature Reserves (LNRs) are a statutory designation made under Section 21 of the National Parks and Access to the Countryside Act 1949 by principal local authorities. LNRs are for people and wildlife. They are places with wildlife or geological features that are of special interest locally. They offer people opportunities to study or learn about nature or simply to enjoy it.
- 4.29 Merton has 15 LNRs. There are clusters of sites surrounding the River Wandle, and in the south- west of the borough. The largest LNRs are Morden Park, Cannon Hill Common and Ravensbury Park. Morden Park is designated for its rich woodland and bird community; Cannon Hill Common is designated for its rich collection of grasses and associated butterflies; and Ravensbury Park is designated for its mixture of habitats which support wetland birds.

Sites of Importance for Nature Conservation

- 4.30 The London Plan (2016) does not have a definition of SINC, but the draft new London Plan (2019) definition of SINC is:

Areas of land chosen to represent the best wildlife habitats in London and areas of land where people can experience nature close to where they live and work. Sites are classified into Sites of Metropolitan, Borough and Local Importance depending on their relative value. Unlike SSSIs, SINC are not legally protected, but their value must be considered in any land use planning decision. Procedures for the identification of SINC are set out in Appendix 5 of the Mayor's London Environment Strategy.

- 4.31 There are 56 SINC in Merton, covering an area of 833Ha (22% of the borough). The largest SINC are Wimbledon and Mitcham Common. There are also a number of SINC in the Wandle Valley, and in the south-west of the borough. Of the SINC, 4 are of Metropolitan Importance, 11 are of Grade 1 Borough Importance, 23 are of Grade 2 Borough Importance and 18 are of Local Level Importance.

Green Corridors

- 4.32 The draft new London Plan (2019) definition of Green Corridors is:

Relatively continuous areas of open space leading through the built environment, which may link to each other and to the Green Belt or Metropolitan Open Land. They often consist of rivers, railway embankments and cuttings, roadside verges, canals, parks, playing fields and extensive areas of private gardens. They may allow animals and plants to be found

¹⁴ <https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/1004317.pdf>

¹⁵ <http://jncc.defra.gov.uk/ProtectedSites/SACselection/sac.asp?EUCode=UK0030301>

further into the built-up area than would otherwise be the case and provide an extension to the habitats of the sites they join.

- 4.33 There are 18 designated Green Corridors in Merton, covering an area of 1023ha (27% of the borough). The largest Green Corridors are at Wimbledon Common, Mitcham Common, Morden Cemetery, Morden Park, Morden Hall Park and the River Wandle.

Open Space Assessment Technical Report Summary

Purpose and Scope

- 4.34 The purpose of the Open Space Assessment was to assess the quantity, quality and accessibility of the existing provision of open space in Merton. It builds on and updates existing studies; assesses future needs and deficiencies; and makes recommendations for locally derived standards.
- 4.35 The Open Space Assessment was carried out in line with the NPPF and Planning Practice Guidance (PPG) for Open Space.
- 4.36 Figure 2 shows the different types of open space that formed part of the assessment.

Quantity Assessment¹⁶

- 4.37 The quantity assessment was carried out using open space data mapped in a Geographic Information System (GIS). This allows the total amount of open space, and the percentage land cover to be measured. The area of open space was assessed against population data to give provision in 'hectares per 1,000 population'.
- 4.38 Merton has 1,329 hectares of open space, which accounts for 35% of the borough. Of this, 21% is public open space. In comparison, London has 42% open space, and 18% public open space¹⁷. Merton's Open Space land cover is similar to neighbouring outer boroughs Kingston (37%) and Sutton (34%). The largest open spaces in Merton are Wimbledon Common and Mitcham Common, with other large clusters of open space in Morden Park, Cannon Hill and the Wandle Valley.
- 4.39 In terms of the main types of Open Space, Merton has less Parks and Gardens, Green Corridors and Amenity Space than London wide; but more Natural and Semi-Natural, Outdoor Sports Facilities, and Cemeteries and Churchyards.
- 4.40 Applying GLA population projections¹⁸, open space provision in 2018 is 6.3 hectares per 1,000 population, but with anticipated population growth (up to 2035), this will reduce to 5.6 hectares per 1,000 population. Using high and low population projections from Merton's Strategic Housing Market Assessment (SHMA)¹⁹, future provision ranges from 5.3 to 5.9 hectares per 1,000 population. Figure 3 illustrates the quantity provision breakdown by ward.

¹⁶ Drawing G7118.019 in the Open Space Technical Report

¹⁷ <https://www.gigl.org.uk/keyfigures/>

¹⁸ <https://data.london.gov.uk/dataset/projections>

¹⁹ Demographic projections (Merton Strategic Housing Market Assessment, Draft Report October 2018)

Quality Assessment²⁰

- 4.41 The open space quality assessment method is aligned to the Green Flag Award²¹, widely recognised as a quality benchmark for parks and green spaces, and advocated by Fields in Trust and used by many other local authorities as part of their Open Space Assessments. The Open Space Quality Assessment evaluated 106 sites throughout the borough.
- 4.42 Overall, 60% of open spaces fall into the Fair/Good/Very Good bandings; whilst 40% fall into the Poor banding. The average scores for Parks and Gardens, Recreation and Outdoor Sports Facilities; Allotments, Community Gardens and City Farms; and Cemeteries and Churchyards all fall into the Fair/Good banding; whilst the average score for Natural and Semi-Natural Greenspace; Green Corridors; and Amenity Greenspace and Education fall into the Poor banding. This shows a general trend of the less formal types of open space being lower quality.
- 4.43 Each type of open space is audited on its own merits, and not on whether it does or doesn't provide certain facilities, so the lower scores for informal/natural open spaces does not mean they should all be 'upgraded' to more formal provision. However improvements should be focused on ensuring the sites are 'Welcoming'; 'Healthy, Safe & Secure'; and 'Well Maintained and Clean' in line with the Green Flag Award benchmarking criteria, which can include:
- Better signage at entrances (this can be as simple as the name of the site and contact details, and for more formal sites, information on facilities and events);
 - Improvements to access into and around the site (including gates, barriers, footpath improvements);
 - Improvements to access to the site from surrounding roads/footpaths such as road crossings;
 - Appropriate levels of vegetation management (not all sites should be 'pristine', but a balance of amenity and nature conservation should be sought);
 - High levels of maintenance of site furniture (e.g. signs, seats, bins, lighting), equipment (e.g. play equipment), and infrastructure (e.g. paths, car parking).

²⁰ Drawing G7118.017 in the Open Space Technical Report

²¹ Raising the Standard: The Green Flag Award Guidance Manual, updated 2016; available at <http://www.greenflagaward.org.uk/>

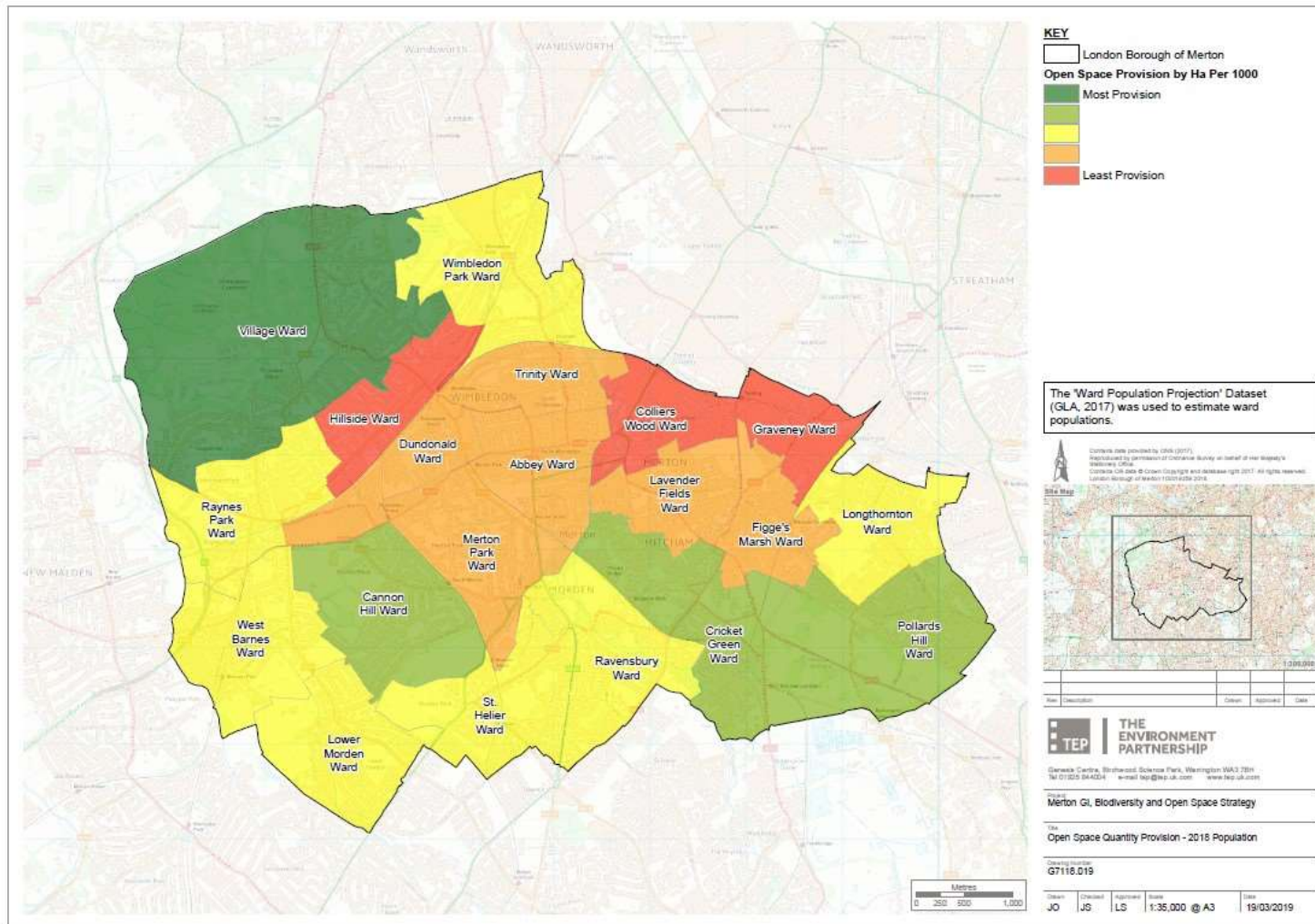


Figure 3: Open Space Quantity Provision by Ward

Play Area Quality Assessment²²

- 4.44 82 play areas were audited as part of the Open Space Assessment; 5 were neighbourhood facilities, 56 were local facilities and 21 were doorstep facilities.
- 4.45 The play area quality assessment was undertaken in accordance with a Play England assessment method²³. The play area audits shows opportunities for improvements across all types of play areas, with 61% of play areas falling into the 'Average; Needs Some Improvement' banding. No sites had 'Serious Weaknesses'. The neighbourhood play areas (with an average score in the Good banding) tended to score better than the local and doorstep play areas (both with average scores in the Average banding).
- 4.46 Future improvements should be focused on 'Location'; 'Play Value'; and 'Care and Maintenance' in line with the Play England benchmarking criteria. It is acknowledged that not all criteria are applicable to the doorstep play areas (such as play for different ages, and toilets/changing facilities).

Accessibility Assessment²⁴

- 4.47 The accessibility assessment is carried out using open space data mapped in a Geographic Information System (GIS), to analyse access to Public Open Space, Play Areas and Nature. The assessment identifies Areas of Deficiency (AoD) in access to open spaces.
- 4.48 AoDs for Public Open Space and Nature are calculated by GiGL using their AoD data model. It involves the integration of access points to an open space with Ordnance Survey's Integrated Transport Network dataset to better predict the accessibility of open spaces in comparison to linear 'as the crow flies' measurements.
- 4.49 Public Open Space categories are defined in The London Plan and provide a benchmark for the provision of publicly accessible open space across the capital, categorising spaces according to their size, facilities and local importance.

Access to Public Open Space

- 4.50 Merton has high accessibility to Regional Parks (98%) and Metropolitan Parks (99%). There is also a good level of accessibility to District (77%) and Local (72%) Parks. There is a notable gap in access to District Parks indicated by a continuous band of deficiency from west to north east through Raynes Park, Wimbledon, Colliers Wood and Mitcham. Open spaces are evident within the area of deficiency to District Parks, but these spaces either do not meet the criteria for a District Park, or are not publically accessible.

²² Drawing G7118.018 in the Open Space Technical Report

²³ <http://www.playengland.org.uk/media/211694/quality-assessment-tool.pdf>

²⁴ Drawings G7118.053 to G7118.060 in the Open Space Technical Report

- 4.51 The best reflection of deficiency in access to open space is to the Local Parks, Small Open Spaces and Pocket Parks (Figure 4). In these areas of deficiency (which appear as pockets of deficiency, fairly evenly spread across the borough) the lack of open spaces is more evident, although there is some evidence of existing open space which is not publically accessible. There are some areas (particularly noticeable around Raynes Park) where there are gaps in access to both District and Local Parks, therefore these areas should be targeted for improvements in accessibility.

Access to Play Areas

- 4.52 Accessibility standards, as defined by the Mayor's SPG on Children's Play and Informal Recreation (2012²⁵), provide a benchmark for the provision of play areas across the capital, categorising spaces according to the age range of the play area.
- 4.53 Access to Play Areas varies greatly in Merton depending on the age range, with over 12 years having 95% accessibility; between 5 and 11 years having 76% accessibility; and under 5's just 27% accessibility. Whilst access to play provision includes both formal equipped play areas and informal play in open spaces, there is a notable lack of equipped play areas in the north west of the borough.

Access to Nature

- 4.54 The AoD for access to nature is defined in the Mayor's Biodiversity Strategy and cited by GiGL²⁶ as: 'areas where people have to walk more than one kilometre to reach an accessible wildlife site of metropolitan or borough importance', the accessible wildlife sites being Sites of Importance for Nature Conservation (SINCs).
- 4.55 Overall, there is good accessibility (84%) to nature in the borough, as shown in Figure 5. The most notable gap is running through the borough from west to north through Raynes Park and Wimbledon. There are some existing open spaces in the areas of deficiency, so there may be opportunities for enhancement depending on their current use. This is also linked to the Green and Blue Infrastructure Assessment Technical Report, and the multi-functionality of open spaces.

²⁵ <https://www.london.gov.uk/what-we-do/planning/implementing-london-plan/planning-guidance-and-practice-notes/play-and-informal>

²⁶ <https://www.gigl.org.uk/designated-sites/areas-of-deficiency-in-access-to-nature/>

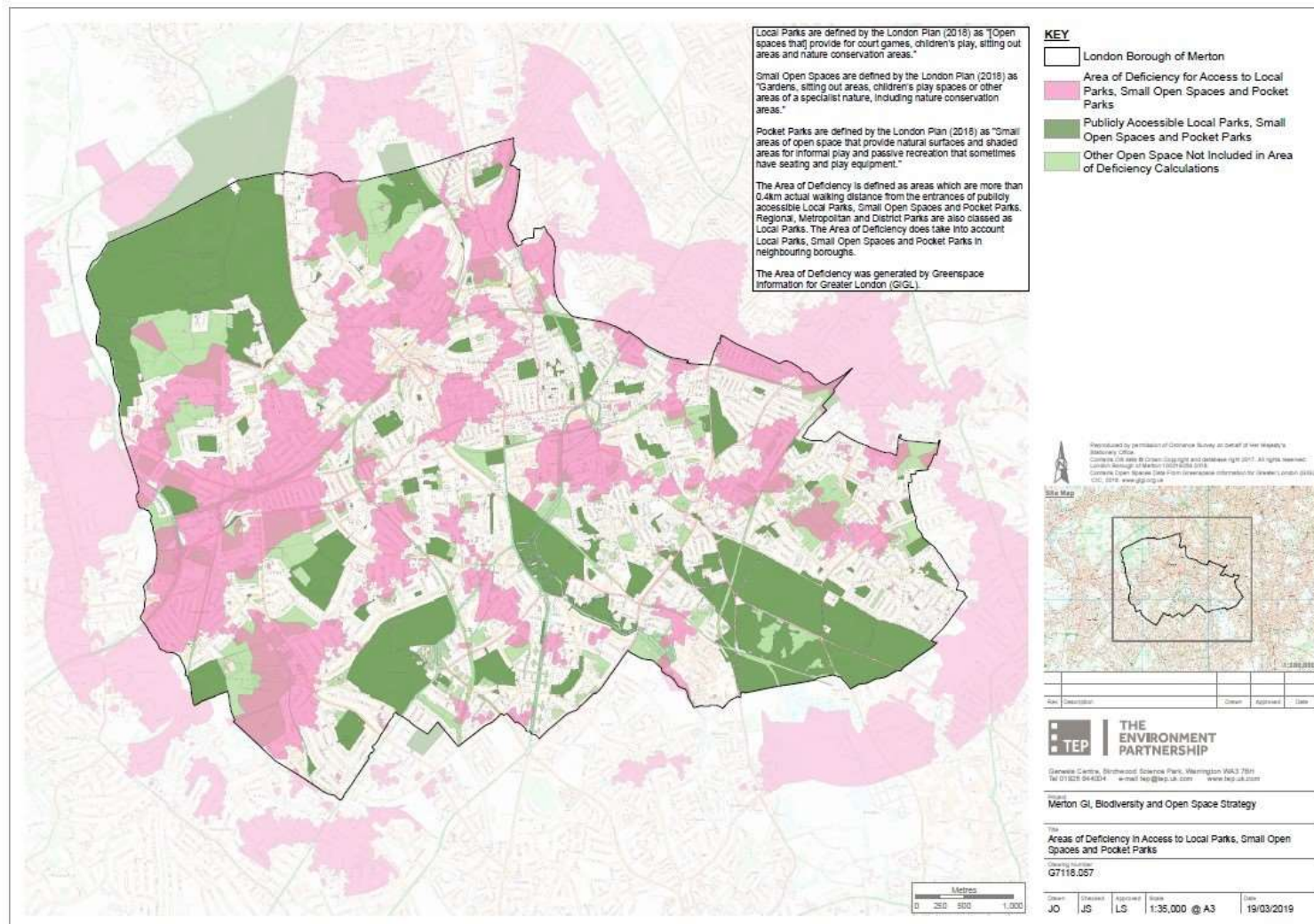


Figure 4 Areas of Deficiency in Access to Local Parks, Small Open Spaces and Pocket Parks

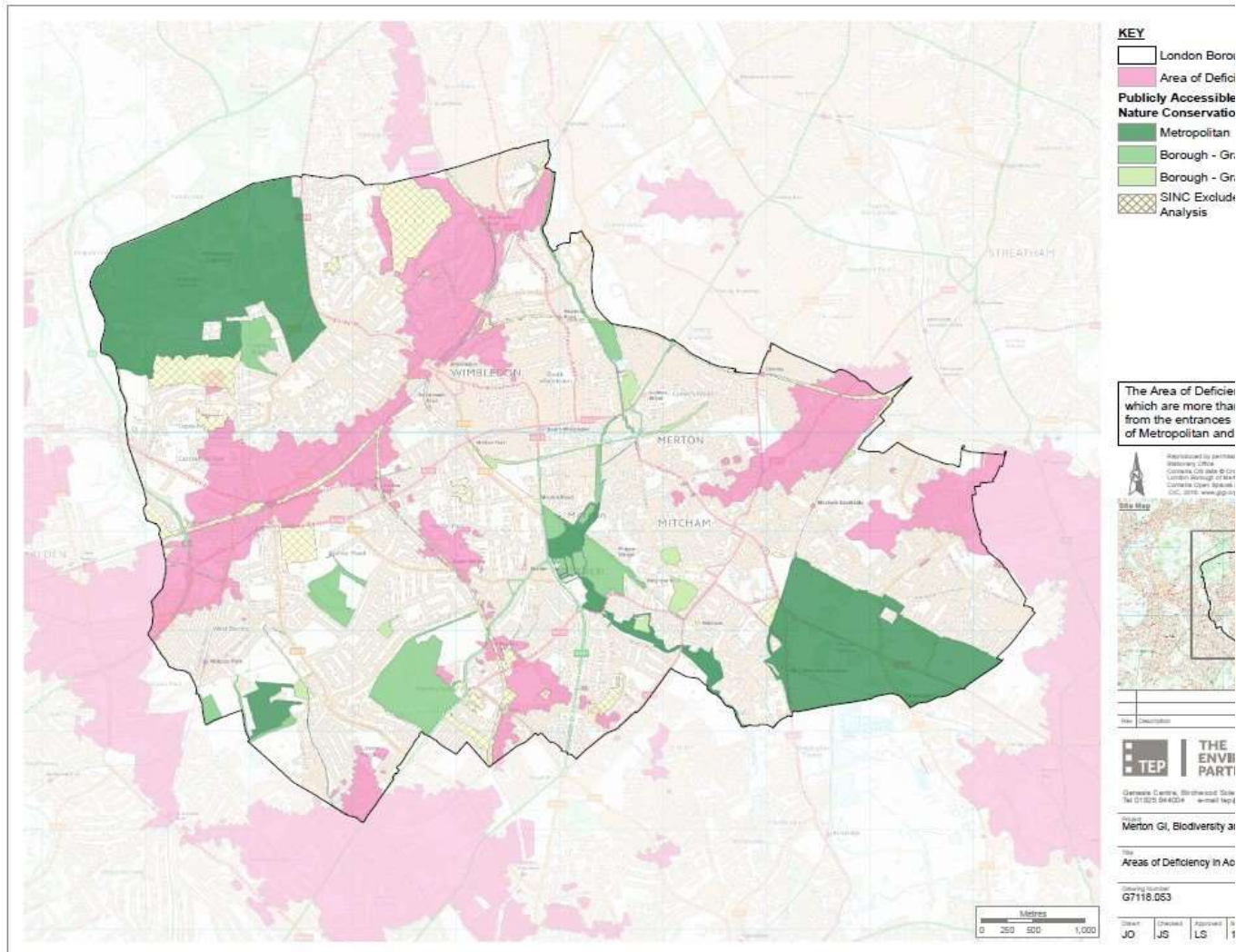


Figure 5 Areas of Deficiency in Access to Nature

Policy and Standards

- 4.56 Based on the open space assessment undertaken, the following policy and standards approaches are recommended for Merton to review for the new Local Plan.

Quantity

- No net loss of open space.
- Recognise that the borough wide 'hectare per 1000' provision will reduce as the population increases and quality improvements can be a focal point in suitable areas.
- Encourage the provision of additional and/or increased functionality of existing open space through major developments with a particular focus on areas deficient in access to nature, play areas, and publicly accessible open space.
- Protect and enhance existing open spaces and the natural environment, providing habitats for biodiversity to flourish and expand.

Quality

- Encourage improvements, enhancements and management that improves both the quality and access to existing green spaces.
- Use National Benchmark standards such as Green Flag, Play England, Sport England where applicable.

Accessibility

- Encourage and improve access and links to and through open spaces, particularly through the assessment of planning applications, using the technical reports to identify areas of need and priority.
- Use London Plan accessibility standards for Public Open Space hierarchy (Regional, Metropolitan, District, Local Parks and Open Spaces, Small Open Spaces).
- Use the Mayor's SPG on Children's Play and Informal Recreation accessibility standards by age range (Under 5's, 5-11, 12+).
- Use the Mayor's Biodiversity Strategy Access to Nature standards (accessible SINC of metropolitan or borough importance).

Open Space Consultation Technical Report Summary

- 4.57 An informal consultation was undertaken by TEP as part of this workstream to provide an opportunity for Friends of the Parks and other community groups to communicate their aspirations and concerns on open spaces in the borough.
- 4.58 A summary **of** the conclusions is provided below.
- 4.59 The most popular type of open space was outdoor sports facilities, followed by natural and semi-natural urban greenspace and parks and gardens.

- 4.60 There were very few open spaces used beyond the borough boundary. Tooting Common, Streatham Common and King Georges Park in Wandsworth were mentioned but it was felt that there were sufficient open spaces within Merton that residents didn't need to travel to neighbouring boroughs.
- 4.61 Consultees used open spaces mostly for accessing nature, formal and informal recreation, improving health and wellbeing, socialising and for getting around the borough away from roads.
- 4.62 Consultees considered open spaces in Merton to have a high environmental and social value. Consultees valued accessibility to open spaces in the urban environment, opportunities for recreation, a sense of space and the contribution that open spaces make to air quality.
- 4.63 The gaps in provisions of facilities in open spaces were identified mainly as provisions such as litter bins and adult exercise equipment. Also open spaces such as allotments were identified as needing to be protected from development as they provide opportunities for recreation, socialising and wildlife. Consultees also wanted to see additional opportunities in open spaces for biodiversity.
- 4.64 Consultees suggested that improvements could be made in the accessibility of privately owned open spaces and footpaths and PRoWs. They also suggested that working relationships and communication between community groups, contractors and the Council will make management and maintenance of open spaces easier and of a higher standard. Improvements to nature conservation, biodiversity and "wild" areas was also highlighted.
- 4.65 Funding and support for community groups also a key concern of consultees. It was suggested that additional funding would be welcomed to allow community groups to continue the management of open spaces. Consultees also stated that Management Plans would assist in the management, maintenance and improvement of open spaces, especially for larger open spaces such as Mitcham Common.

Green and Blue Infrastructure Assessment Technical Report Summary

Purpose and Scope

- 4.66 Green and blue infrastructure (GBI) has been defined as '*a strategically planned and delivered network comprising the broadest range of high quality green spaces and other environmental features*' (Natural England, 2009²⁷).
- 4.67 It includes a variety of land cover types such as parks, rivers and private gardens which can be assessed for their provision of ecosystem services such as carbon storage, recreational space, and the removal of air pollutants which are beneficial to the environment, people and the economy. Given the pressures on land use, it is important that green and blue infrastructure is assessed and strategically managed to maximise the potential benefits for the borough.

²⁷ <http://publications.naturalengland.org.uk/publication/35033>

- 4.68 The purpose of the GBI assessment was to assess the quantity (land cover) and quality (functions) of the existing provision of GBI in Merton and to assess the current provision within the context of Merton's priorities, as set out in Section 1 of this report.
- 4.69 The GBI Assessment covers all types of open space included in the Open Space Assessment, which are further broken down into components such as:
- Woodland;
 - Grassland, Heathland, Scrubland; and
 - Reservoirs and Watercourses.
- 4.70 Additional types of green infrastructure are also included which do not form part of the Open Space Assessment, these are:
- Green Roofs;
 - Street Trees;
 - Private Domestic Gardens;
 - Agricultural and Horticultural Land; and
 - Derelict and Vacant Land.

Land Cover

- 4.71 Merton has 2,496 hectares of GBI, representing 66% of the borough. Major areas of GBI include Wimbledon Common, Morden Park, Morden Hall Park, Mitcham Common and the River Wandle. Merton has a similar coverage of GBI to London as a whole, which has an estimated 64%^{28&29} of GBI. Note the London comparison combines published figures of 38% Open Greenspace, 24% Private Domestic Gardens, and 2% Open Water. The amount of 'green' in London is reduced to 47% in the published figures as they take into account hard-surfaced/built areas in open space and gardens.

Trees and Woodland

- 4.72 The total tree canopy, including in private gardens, covers an area of 1,040 hectares, approximately 28% of the borough. This uses an estimate from the i-Tree Tool³⁰. There are different techniques for estimating tree and woodland coverage, but of the total tree canopy: 266.1 hectares (26%) consists of woodlands contained within parks and public open spaces; 15.2 hectares (1.5%) consists of individual woodlands; 116.7 hectares (11.2%) consists of street tree (canopy); and the remainder (61.3%) is found in private gardens, cemeteries and institutional grounds.
- 4.73 The major areas of woodland are in Wimbledon and Mitcham Common, Morden Hall Park and Morden Park.

²⁸ <https://www.london.gov.uk/sites/default/files/gitaskforcereport.hyperlink.pdf>

²⁹ <https://www.gigl.org.uk/keyfigures/>

³⁰ <https://canopy.itreetools.org/index.php>

- 4.74 London's tree coverage is estimated to be 20%³¹, and the London Environment Strategy has set a target to increase it by 10%, recommending that London-wide, 3000 hectares of new tree and woodland canopy is established by 2050, including 1000 hectares of new woodlands in the outer London boroughs³².

Rivers and Wetlands

- 4.75 Three major waterways run through the borough: the River Wandle; Beverly Brook; and Pyl Brook. Merton's section of the River Wandle is approximately 7.3km long, and flows south to north through the centre of the borough. Beverly Brook is approximately 5.3km long and runs along the western border of the Borough. Pyl Brook is approximately 3.6km long, and flows through the west of the borough. There are a number of other smaller waterbodies within open spaces in the borough.
- 4.76 The London Environment Strategy identifies rivers and wetlands as a priority for habitat creation, recommending that, London-wide, 30Ha new reedbed is created in the period to 2050.

Grassland

- 4.77 The largest areas of open grassland are in Wimbledon and Mitcham Commons, with other notable areas alongside the River Wandle. Grassland is also present in other land cover types, such as Parks and Formal Gardens or Cemeteries and Churchyards.
- 4.78 The London Environment Strategy identifies flower-rich grassland as a priority for habitat creation, recommending that, London-wide, 250Ha new flower-rich meadow is created in the period to 2050, primarily through conversion of amenity swards³³.

Private Gardens

- 4.79 Gardens cover 26% of the borough, the highest GBI typology in the borough. This is comparable with the London wide figure of 24%. They contain a range of landscape features, including trees, grassed areas and hard-surfacing.
- 4.80 Policy DM D1 Urban Design and the Public Realm in the Sites and Policies Plan (July 2014) seeks to ensure high quality design of buildings and places in the borough. The Policy states that any proposals for the conversion of front gardens for vehicle parking should not be detrimental to the character of the street or highway safety or undermine biodiversity, prevent sustainable drainage. This is something that can be reviewed and strengthened through the new Local Plan.

Green Roofs and Walls

- 4.81 Green roofs account for only 0.05% of Merton's land cover. The London Environment Strategy identifies that more green roofs and green walls are needed throughout London to help make London a greener place and to enhance biodiversity.

³¹ https://www.london.gov.uk/sites/default/files/measuring_tree_canopy_cover_2015.pdf

³² London Environment Strategy (GLA, 2018) <https://www.london.gov.uk/what-we-do/environment/london-environment-strategy>

³³ London Environment Strategy (GLA, 2018) <https://www.london.gov.uk/what-we-do/environment/london-environment-strategy>

Functions/Ecosystem Services³⁴

- 4.82 GBI in Merton performs a range of functions or 'ecosystem services'. GBI was assessed for nineteen ecosystem services, as shown in Table 1. Many types of GBI are multifunctional, for example a park provides recreation, but can also provide a habitat for wildlife and water infiltration.
- 4.83 GBI in Merton which provides a high number of services includes Morden Park, Morden Hall Park, Mitcham Common, Wimbledon Common, Wimbledon Park and the River Wandle. Street trees and woodland provide the most ecosystem services, with an average of 10 services. Private gardens were among the lowest performing component of GBI, providing an average of 5 services.

Table 1: Green and Blue Infrastructure Functions or Ecosystem Services

GBI Function	Description
Recreation – Public	Areas that can be freely used by members of the public for recreation purposes without any restrictions to access.
Recreation – Private	Areas that can only be used for recreation by the landowner or those invited by the landowner.
Recreation – Public with Restrictions	Areas that can be used by members of the public for recreational purposes, but the access or use of the space is restricted. This could be because the space is only accessible on a membership basis, or is only open at selected times.
Green Travel Route	Areas that can act as off-road routes for pedestrians and cyclists.
Aesthetic	Areas which improve the image of an area, which can make the area a more attractive place to live, work and visit.
Shading from Sun	Areas which protect people or surfaces from solar radiation. This can reduce surface temperatures and increase comfort levels. This function is key in the adaptation to climate change.
Evaporative Cooling	Areas where vegetation transpires water from their surfaces, which cools their immediate surroundings.
Trapping/Removal of Pollutants	Pollutants such as Ozone, Nitrogen Dioxide and Particulates can be removed from the air by vegetation through their leaf stoma or through interception. Vegetation can also act as a filter to remove pollutants from water.
Noise Absorption	Areas which are able to intercept and reduce the impact of noise on the surrounding area.
Habitat for Wildlife	Areas which are able to provide a habitat, or act as a food source for local wildlife.
Corridor for Wildlife	Areas which act as routes for species to move between habitat areas.

³⁴ Drawing G7118.021 in the GBI Technical Report

GBI Function	Description
Heritage	Areas which contribute to the historic links in the landscape, such as designated monuments.
Culture	Areas used for cultural purposes, such as public art or events.
Carbon Storage	Areas which make a notable contribution to the sequestration and storage of carbon from the atmosphere. All vegetation is able to remove carbon, however trees are thought to be particularly valuable.
Food Production	Areas used for growing crops or grazing animals.
Learning	Areas which contribute to the knowledge of individuals about the environment.
Water Storage	Areas which are able to store water for use by humans.
Water Interception	Areas which are able to intercept rainfall and slow the water's flow into the ground. This can reduce the risk of flooding.
Water Infiltration	Areas which assist the movement of water or rain into the ground. This can reduce surface flow and the risk of flooding.

5.0 GBI Priorities

- 5.1 Green and blue infrastructure fulfils many life-sustaining and growth-enhancing functions. This study is concerned with creating, conserving and enhancing the GBI that is most important for Merton in the next decades.
- 5.2 The following green and blue infrastructure priorities are derived from Merton's strategic objectives³⁵, the emerging Merton Local Plan 2020³⁶, the London Plan³⁷, the Mayor's London Environment Strategy³⁸, and the All London Green Grid³⁹.

Green and Blue Infrastructure Priorities

- Promoting Physical and Mental Health and Wellbeing
 - Adapting to Climate Change and the Urban Heat Island Effect
 - Supporting Housing Growth and Quality of Life
 - Supporting Economic Growth and Investment
 - Improving Air and Water Quality
 - Encouraging Walking and Cycling
 - Supporting Landscape and Heritage Conservation
 - Supporting Learning about the Environment
 - Conserving and Enhancing Biodiversity and Ecological Resilience
- 5.3 Given the environmental challenges facing London as a whole, and the anticipated population growth in Merton, it is vital that all the borough's GBI is managed to optimise its benefit to people and wildlife. Even so, some areas of the borough are priorities to target, in terms of human resourcing, investment and policy-making, to ensure equitable access to the benefits of GBI.
- 5.4 Detailed mapping of GBI typologies, functions, priority areas and assets is included in the Merton Green and Blue Infrastructure Technical Report. The report also explains the criteria for identification of GBI priority areas and shows existing GBI assets in relation to each priority. A map showing Merton's Green and Blue Infrastructure Key Assets from the Technical Report is included below as Figure 6.
- 5.5 Key assets are GBI features which meet multiple priorities. The number of priorities each GBI feature fulfils leads to a Key Asset Score, which identifies the most important GBI features within the borough. Green and blue infrastructure assets surrounding the River Wandle have a high Key Asset Score, such as Ravensbury Park and Wandle Meadow Nature Park. Many other open spaces in the borough contain assets which score highly, including Wimbledon Park, Prince George's Field, Morden Hall Park and Mitcham Common.

³⁵ Merton's Core Strategy 2011 <https://www.merton.gov.uk/planning-and-buildings/planning/local-plan>

³⁶ London Borough of Merton Local Plan 2020 Consultation Draft 2018

³⁷ The Greater London Plan (August 2018 version with minor suggested changes for Examination in Public)

³⁸ The London Environment Strategy (Mayor of London, May 2018)

³⁹ Green Infrastructure and Open Environments: The All London Green Grid Supplementary Planning Guidance

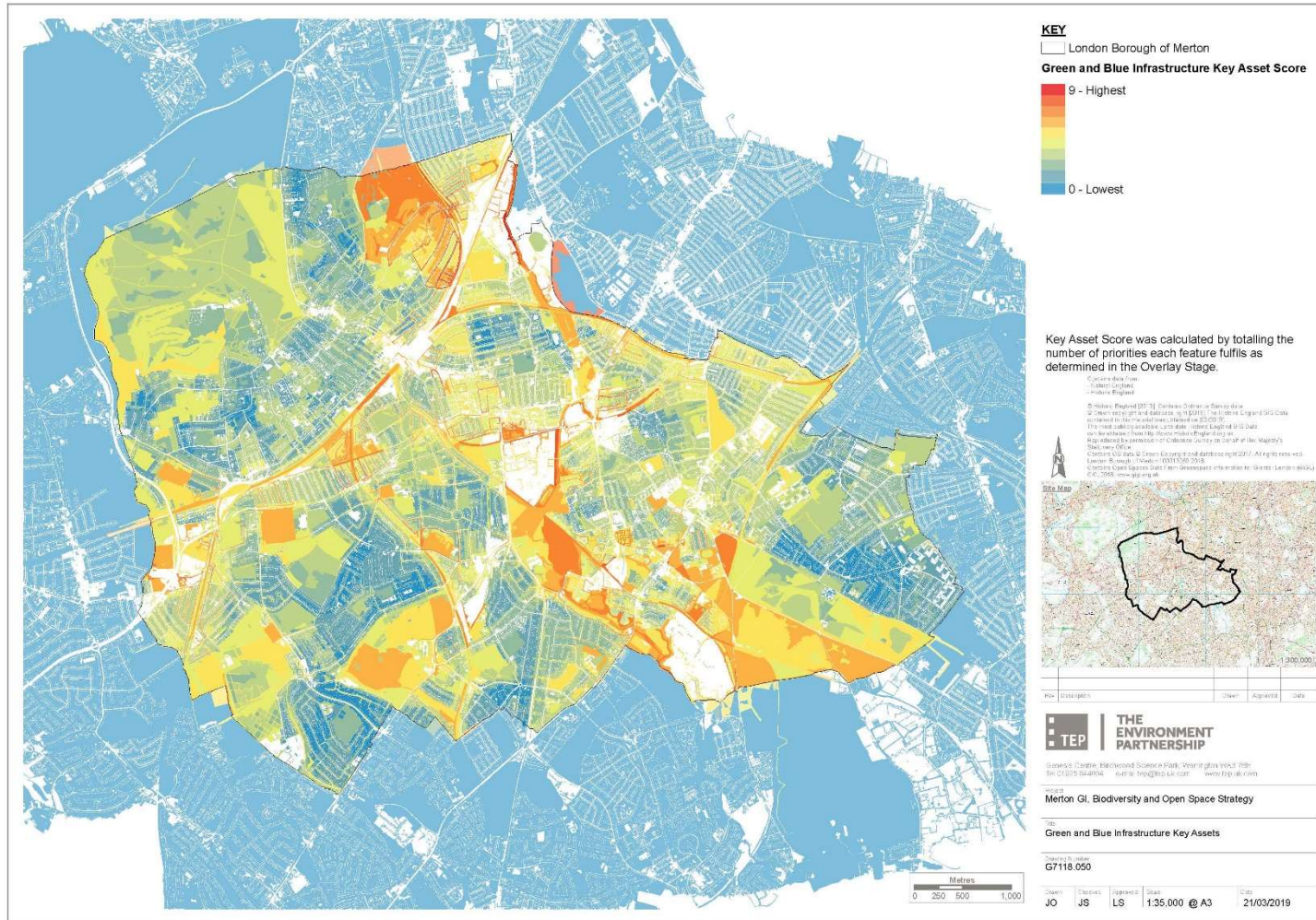


Figure 6: Merton Green and Blue Infrastructure Key Assets Map

Promoting Physical and Mental Health and Wellbeing⁴⁰

- 5.6 Priority areas for using GBI to help improve physical and mental health are identified on the basis of areas of deficiency in access to nature, areas of deficiency in access to local open spaces and pocket parks, neighbourhoods where more than 15% of the population have long-term limiting illness or disability, neighbourhoods where more than 5% of the population report bad health and areas within 100m of a hospital.
- 5.7 The priority areas for physical and mental health and wellbeing are found in many parts of the borough. Large priority areas are identified in Raynes Park, Morden, Mitcham and Colliers Wood.
- 5.8 Assets are identified in the west, south and north-east of the borough. A number of assets are identified in the area surrounding the railway lines, and in many of the open spaces in the borough. A number of open spaces are identified as assets in Merton, including Mitcham Common, Morden Park, Morden Hall Park and Prince George's Playing Fields.
- 5.9 Lack of provision was found in many industrial estates in the borough, including those south of Merantun Way and west of Mitcham Common, Wier Road. Where the priority was met in these areas, the GBI largely comprises landscaping around housing and industrial estates/premises.

Adapting to Climate Change and the Urban Heat Island Effect⁴¹

- 5.10 Priority areas for using GBI to help prepare for climate change are identified on the basis of floodzones, wards with less than 21% tree canopy⁴² and areas where more than 50% of ground surfaces are sealed.
- 5.11 The Wandle Valley and associated built-up areas are priority areas, along with North Mitcham and Wimbledon. Additional priority areas are identified in the south-west of the borough in West Barnes, and along the Pyl Brook.
- 5.12 Morden Hall Park is a critical GBI asset in terms of climate change adaptation, since it provides surface water absorption and water flow attenuation along with shade from its tree canopy. Other valuable GBI assets include Wimbledon Park, Morden Park, Morden Cemetery, Mostyn Gardens, South London Crematorium and Streatham Park Cemetery.
- 5.13 Many street trees in Raynes Park, Colliers Wood and South Wimbledon also act as GBI assets for the climate change priority. Some of these assets could be examined to see if they can provide further opportunity for tree planting and creation of swales or other sustainable drainage systems.

⁴⁰ Drawings G7118.036 and G7118.041 in the GBI Technical Report

⁴¹ Drawings G7118.033 and G7118.047 in the GBI Technical Report

⁴² The London average tree canopy cover is ca 20% so areas with lower cover may benefit most from new tree

- 5.14 Nevertheless there are several priority areas which currently lack GBI provision, including the industrial estates south of Merantun Way and surrounding Wier Road; the area surrounding the Kingston Bypass and the retail park west of Church Road, along with several relatively tree-less residential areas in the floodzone of the River Wandle .

Supporting Housing Growth and Quality of Life⁴³

- 5.15 Priority areas for GBI to support housing growth and quality of life are identified on the basis of wards where more than 800 new houses are predicted in the forthcoming London Plan period, and areas which are amongst the 20% most deprived.
- 5.16 The priority areas are in Wimbledon Park, Colliers Wood, Morden and Mitcham. The Wandle Valley defines a centre line for this priority.
- 5.17 The priority areas are reasonably well-served with existing GBI assets, meaning that most areas are reasonably well-prepared for population increases, notwithstanding the need to ensure that new development considers the need to sustain these assets. Open spaces along the Wandle are important, notably Morden Hall Park. Mitcham Common is a strategically important asset in respect of supporting growth and helping to address some aspects of deprivation.
- 5.18 Priority areas with relative lack of current GBI provision are in Colliers Wood and west of Mitcham Common.
- 5.19 The Open Space Assessment identifies areas of current local deficiency in access to open spaces and discusses potential population growth scenarios. Major housing developments offer an opportunity to create pocket parks and public realm, and importantly, will need to consider the need to ensure that nearby GBI assets are sustained in the face of increasing population pressures.

Supporting Economic Growth and Investment⁴⁴

- 5.20 Priority areas for economic growth and investment are identified on the basis of strategic and locally significant industrial locations and shopping frontages. Priority areas are located around the town centres of Wimbledon, Morden and Mitcham, and in industrial and retail estates in the north, west and south of the borough.
- 5.21 Unsurprisingly there are few GBI assets for these urbanised priority areas, other than small pockets of landscaping around housing and industrial premises.
- 5.22 Some open spaces alongside the River Wandle do contribute to this priority, including Bennett's Hole, Durnsford Road Recreation Ground and London Road Playing Fields.

⁴³ Drawings G7118.030 and G7118.045 in the GBI Technical Report

⁴⁴ Drawings G7118.040 and G7118.046 in the GBI Technical Report

- 5.23 Application of urban greening policies to these priority locations would, over time, enable an uplift in the quality of GBI as and when new developments and refurbishments take place. The quality of the public realm in shopping areas is seen as key to town centre success, so investment in town centre civic spaces is needed, funded by planning contribution, business improvement and other town centre activity.

Improving Air and Water Quality⁴⁵

- 5.24 Priority areas for GBI to address air and water quality issues are the borough's Air Quality Focus Areas, wards with less than 21% tree cover and areas within 100m of A-roads and railways.
- 5.25 One priority area for air and water quality encompasses Wimbledon Park and Mitcham Eastfields Stations. Smaller priority areas are identified in West Barnes and Morden town centre, in addition to areas along major transport routes, including the railway lines, Croydon Road, Western Road and Parkside.
- 5.26 Clusters of relevant GBI assets are identified in the north-east and south-east of the borough, and along the primary transport routes. Many open spaces already contain GBI assets which help address air and water quality issues, for example Wimbledon Common, Wimbledon Park, Raynes Park, Sir Joseph Hood Memorial Playing Fields, Morden Park, Morden Hall Park, Mitcham Common and Figges Marsh. Many street trees within Colliers Wood and East Wimbledon are locally important assets.
- 5.27 Areas with a lack of GBI provision are found in Morden, East Mitcham and various industrial estates.

Encouraging Walking and Cycling⁴⁶

- 5.28 The priority areas for deploying GBI to encourage walking and cycling are along the major transport routes, such as Croydon Road, Streatham Road, Western Road and Merton High Street. Other priorities include the major off-road cycle routes such as along the Wandle Valley.
- 5.29 Quite a good proportion of the priority walking and cycling network is well-served by (or at least well linked-to) GBI assets such as street trees and local open spaces, but there are many gaps. A notable lack of GBI assets is found along Streatham Road, Durnsford Road, Western Road, Ernle Road and Wimbledon Hill Road. Tactics for addressing deficiency include establishing a street greening programme to be funded by development using s106 or CIL monies. Such a programme would include new street trees and green SUDS features, way marking and local diversions to enable walking and cycling into green spaces.

⁴⁵ Drawings G7118.032 and G7118.046 in the GBI Technical Report

⁴⁶ Drawings G7118.039 and G7118.044 in the GBI Technical Report

Supporting Landscape and Heritage Conservation⁴⁷

- 5.30 Priority areas for landscape and heritage conservation are identified on the basis of Metropolitan Open Land, Historic Parks and Gardens, and Conservation Areas. Unsurprisingly the priority areas for deploying GBI to safeguard landscape and heritage are in and around the borough's major open spaces, such as the River Wandle, Wimbledon Park, Wimbledon Common, Morden Park, Morden Hall Park and Mitcham Common. Conservation Areas are also of local priority.
- 5.31 The priority areas are generally well-supplied with GBI assets, including district parks, street trees and smaller public open spaces. Examples include Raynes Park, Cannon Hill Common, Morden Cemetery and smaller open spaces in the Wandle Valley. Tactics for sustaining these assets for the benefit of landscape and heritage include management planning, community involvement in management and future-proofing of the tree stock through tree care and new planting.

Supporting Learning about the Environment⁴⁸

- 5.32 Priority areas for using GBI to support learning about the environment are identified on the basis of proximity to schools and areas of deficiency in access to nature.
- 5.33 The largest priority areas are in residential neighbourhoods surrounding the railway lines and Streatham Road. Other priority clusters occur throughout the borough, particularly in West Mitcham.
- 5.34 The priority areas in the west and centre of the borough are generally well-served by suitable GBI assets such as parks and open spaces and school grounds which can be managed to provide learning opportunities. However, even where an area is well-served by assets, the challenge is to continually engage young learners and encourage exploration of their local natural spaces.
- 5.35 Some priority areas for learning about the environment in the south and east of the borough have fewer suitable GBI assets. Low levels of current provision are found in various places e.g. along Stanford Way and surrounding Kingsbridge Road. In these cases, tactics to enhance environmental learning can include creation of pocket gardens in school grounds, active environmental education outreach from nearby parks to schools (such as establishing a Forest School area in a park), and improving the streetscene to include more trees and traffic-calming which will promote passive learning about the environment while walking.

Conserving and Enhancing Biodiversity and Ecological Resilience⁴⁹

- 5.36 Priority areas for GBI to conserve and enhance biodiversity are identified on the basis of the presence of priority habitats⁵⁰, green corridors and land within designated nature conservation sites, and a 50m buffer around the SSSI/SINC to address the London Plan requirement to safeguard and connect such sites. Floodzones 2 and 3 are also considered as a priority since they offer greater opportunities to create or restore wetland habitats.

⁴⁷ Drawings G7118.038 and G7118.043 in the GBI Technical Report

⁴⁸ Drawings G7118.037 and G7118.042 in the GBI Technical Report

⁴⁹ Drawings G7118.034 and G7118.048 in the GBI Technical Report

⁵⁰ As listed under s41 of the Natural Environments and Rural Communities Act, 2006

- 5.37 The priority area for biodiversity and ecological resilience was found to be in most of the major open spaces throughout the borough, including Mitcham Common, Morden Park, Wimbledon Common and Wimbledon Park. A corridor of need was identified surrounding the River Wandle, including Morden Hall Park.
- 5.38 Most assets for this priority are found within open spaces including: Wimbledon Park, Wimbledon Common, Raynes Park Sports Ground, Cannon Hill Common, Morden Cemetery, Morden Park, Morden Hall Park, Moreton Green, London Road Playing Fields and Mitcham Common. Many green corridors and street trees are also identified as assets surrounding the railways lines.
- 5.39 Many open spaces surrounding the River Wandle contain assets, however there are notable areas with a lack of provision around Plough Lane in Wimbledon and Wates Way in Mitcham.

6.0 Delivery

- 6.1 The steps to delivery for Merton's Green and Blue Infrastructure, Open Space and Biodiversity Study is summarised below, linking back to the headings from the 'Vision' in Chapter 2.

Enhancing our Assets (A Greener Place)

- 6.2 Commitment should be given to current assets and existing infrastructure which ranges from renowned landscapes to locally valued spaces. Merton's spaces contribute to London as a National Park City and investment over the duration of this plan will see green and blue infrastructure enhanced and quality improved for local residents whilst contributing to a number of national and local policies. To achieve this, management and diversification of open space can create opportunities for increased provisions and multi-functionality resulting in a wide range of benefits whilst driving standards of open space across Merton.
- 6.3 Planning for 2:1 replacement ratio for all trees in parks, civic spaces and conservation areas that are likely to be comprised by climate change will help increase potential for carbon storage and make the borough greener. Replacement trees must be appropriately selected for future management and size to ensure they can effectively reach maturity. Increased green infrastructure can also help elevate some of these future issues and current issues we face such as that of the heat island effect and air pollution. Areas identified in the assessment as lacking tree cover should be supported to reach achievable targets and support greener connections with the rest of the borough. Engagement with communities and schools will also help meet these targets whilst providing educational value to the children of Merton.
- 6.4 Future major development in the borough, including the three estate regenerations in Eastfields, Ravensbury and High Path, Morden town centre, Wimbledon, Mitcham and other major schemes will provide a key opportunity to support good growth through the provision of high quality neighbourhoods and public spaces. Opportunities will arise to encourage greener spaces and enhance links to local parks.

Accessing our Spaces (A Well Connected Place)

- 6.5 Where neighbourhoods have a deficiency of access to parks and/or nature, improved engagement with developers and site owners can lead to the creation and improvement of parks and multifunctional spaces which are sensitive to community needs. Major development in town centres and along transport corridors can be utilised to uplift the quantity and quality of green infrastructure. Development proposals will need to ensure high design quality alongside the use of an Urban Greening Factor in line with the London Plan.
- 6.6 Throughout the borough, investment in the walking and cycling network will make it easier for people to enjoy outdoor exercise and result in greener travel across the borough. Residents' needs should be carefully considered to help identify any lack of provision which can then inform change and allocations requirements across the open spaces.

Wildlife & Biodiversity Value (A Place for Wildlife)

- 6.7 Merton boasts a number of significant green spaces and infrastructure which provides valuable habitat to wildlife and again contributes to London as a National Park City. Continued and improved management of a number of these spaces including Wimbledon Common SSSI is vital to ensure future wildlife can flourish. Increased planting and enhancement of existing green infrastructure through thorough management will help achieve these goals whilst assisting us to accomplish a number of other delivery objectives.
- 6.8 The Wandle Valley Regional Park is the spine of Merton's green and blue network. Development within close proximity of the river and the park should contribute through access improvements and habitat enhancements. Enhancements here will have further positive effects on adjacent and connecting habitats as green corridors and infrastructure is improved. Increased tree planting will provide further support for connections along existing travel infrastructure to provide benefits to residents and wildlife.
- 6.9 Increased opportunity for more localised change should be promoted to transform areas of species-poor grassland in parks and amenity areas into flower-rich meadows whilst encouraging residents to create positive change within their own homes, such as increased tree planting and green walls and roofs.

Healthy Spaces (A Happy Place)

- 6.10 Merton's Health and Wellbeing Strategy 2019 has a vision for all residents to "Start well, Live well, Age well". The Strategy highlights that green spaces are assets that are highly valued and can encourage physical exercise, improve mental health, and increase biodiversity.
- 6.11 The Strategy for the Wandle Valley Regional Park Trust 2016-2021 aims to create a place for healthy living, be it physical or mental health, by improving access and quantity of good public realm and greenspace.
- 6.12 Parks and greenspaces can be utilised for a variety of functions, including Forest Schools, Green Gyms and nature-based prescriptions which link people with parks and promote healthier lives to all residents.
- 6.13 Provisions and facilities will be incorporated across green spaces to ensure health and social benefits for adults and children within the borough. Opportunities for food production such as allotments and orchards should be identified and managed well to establish educational prospects to raise awareness to health and wellbeing and community initiatives.

Protecting Spaces for Future Communities (A Forward Looking Place)

- 6.14 The Council should be working towards a circular economy, which is where resources are kept in use and at their highest value for as long as possible.

- 6.15 Preservation of existing qualities is vital in ensuring Merton remains a place people want to live, work and enjoy. This is at the forefront of this study as the population increases over the coming years. A 'no net loss' approach has been identified as beneficial to ensure no loss to quality and quantity of provisions within the borough. Further protection can be achieved by utilising the popularity of existing open space such as Merton's natural greenspaces to accomplish a number of these delivery targets.
- 6.16 Protection of provisions such as play areas within the borough is vital for securing good quality, secure and stimulating spaces for children. Investment is recommended to ensure these facilities are available to all children across the whole borough ultimately devoting resource to future communities.
- 6.17 One of the key strategic aims of the Wandle Valley Regional Park is to drive economic growth, which develops a strong business case for investment in heritage and the environment. The Wandle Valley Regional Park will use the environment to encourage employment, training, apprenticeships and enterprise.

Celebrating our Environments (Celebrating our Place)

- 6.18 Merton's influential green and blue infrastructure can help the London-wide National Park City movement to celebrate the vital role of green and blue infrastructure in local and city-wide quality of life. Opportunities should be taken to publicise the role of parks, open spaces and trees in Merton life. Merton has an established network of volunteers and can rely on assistance from local businesses and communities with an affinity for the area. Local park friends groups, tree wardens, volunteer rangers and councillors are key to delivering and maintaining green and blue infrastructure. Social infrastructure provisions will be key to providing communities with opportunities of creating and establishing sustainable neighbourhoods. Innovative ways should be found to encourage residents to become active stewards of Merton's open spaces.

APPENDIX A: DELIVERY PARTNERS

Partners

Consultation has shown that Merton has an active community engaged and invested in open spaces and green infrastructure. Continued communication and engagement with these parties and stakeholders will ensure the management of these spaces are in line with the community and their needs. By working with the Mayor of London and GiGL, improvements can be made to the quality and availability of data on green and blue infrastructure. Utilising modern technology can investigate whether web mapping can be used to stimulate further resident interest in outdoor life, environmental science and biological recording to develop educational and wellbeing commitments.

Local Partners

Community Groups

Several community groups (including Friends of the Parks groups, Residents Associations, and other Community Forums) took part in the consultation for this study. This was an informal consultation exercise undertaken by sharing maps and asking questions to inform the study. Formal consultations in line with planning regulations will be undertaken on the emerging Local Plan where the council will encourage all views on open spaces as well as other planning matters.

Wandle Trust

Wandle Trust is part of the South East Rivers Trust, an environmental charity which aims to deliver healthy river ecosystems across the south east of England through education, engagement and ecosystem improvement.

London Wide Partners

London Wildlife Trust

London Wildlife Trust (LWT) is a charity dedicated solely to protecting London's wildlife and wild spaces, engaging London's diverse communities through access to London's nature reserves, campaigning, volunteering and outdoor learning. LWT manages six Local Nature Reserves and assists with the management of sites on Wimbledon and Mitcham Commons. LWT has an active group of volunteers that meet on Sunday mornings in autumn and winter and in the spring and summer there is a schedule of nature walks on the various sites.

Greenspaces for Greater London (GiGL)

GiGL is London's environmental records centre. They work with partners, recorders, clients and the general public to collate detailed data on London's natural environment. They provide access to the data via services tailored to the requirements of those who need to make informed decisions in London. The services provide access to data, information and answers. These play an essential role in decision-making at all levels, helping to raise the profile of biodiversity and geodiversity in London and beyond.

Parks for London

Parks for London is an independent charity that exists to ensure that London's green infrastructure continues to thrive now and into the future. The charity enables the people who plan, design and manage London's parks and green spaces to share knowledge and experience. Their role is also to maintain and improve quality, maximise services and benefits and get the most from limited resources.

London Rivers Restoration Group

London Rivers Restoration Group is a sub-group of the Catchment Partnerships in London (CPiL) Group. The purpose of London River Restoration Group is to promote and report on the delivery of river restoration and enhancement projects in support of the catchment-based approach to delivering Water Framework Directive objectives across London.

London Forum of Amenity and Civic Societies

The London Forum represents the views and interests of amenity and civic societies in London and their members on issues that are important for the living and working environment of Londoners, particularly in the fields of Town Planning, Development Management, Heritage, Transport, Infrastructure, Waterways and Open Spaces

London Parks and Gardens Trust

London Parks & Gardens Trust (LPGT) is an independent registered charity with the aim to promote the education of the public on matters connected with the arts and sciences of historic garden land and to preserve, enhance and re-create for the education and enjoyment of the public, whatever historic garden land may exist or have existed in and around London.

National Partners

National Trust

National Trust is a nationwide charity that is responsible for the protection conservation of heritage and wildlife sites across the UK. Within Merton, the National Trust owns and runs Morden Hall Park.

Canal and River Trust

The Canal and River Trust is a charity responsible for 2,000 miles of waterways. They work with communities to transform their local canal or river, creating places and spaces that can be used and enjoyed by everyone.

Historic England

Historic England are the public body that helps people care for, enjoy and celebrate England's spectacular historic environment.

Sport England

Sport England helps people and communities across the country get a sporting habit for life. It also protects existing sports provision such as playing fields on open spaces.

Public Health England

Public Health England is an executive agency of the Department of Health and Social Care in the United Kingdom. PHE's mission is "to protect and improve the nation's health and to address inequalities"

Trees & Design Action Group

The Trees and Design Action Group (TDAG) is an open collaborative forum facilitating cross-sector and cross-disciplinary dialogue and projects promoting the role of the urban forest throughout the United Kingdom.

Fields in Trust

Formerly NPFA, Fields in Trust published 'Beyond Six Acre Standard' (2016) benchmark standards for open space and sports.



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