

June 2021 Adopted version www.enfield.gov.uk



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## **Foreword**

Over half of the borough is classified as green or blue, making us one of London's most treasured environments. Our parks, trees, open spaces, routes, woodlands and watercourses represent some of our best assets.

These assets also symbolise the borough's identity (as expressed in the blue and green stripes on Enfield's official crest – see below) and have left an indelible mark on the landscape.



This document sets out our ten-year strategy to protect, maintain and enhance the borough's network of blue and green assets in response to the challenges ahead. For instance, more affordable homes are needed alongside new open spaces, accessible routes and sport facilities to meet the needs of our growing population. We also need to widen access to and encourage the active use of our existing assets, as we recover from the impacts of covid-19 and the economic slowdown.

As set out in our climate change emergency declaration, we are committed to increasing the amount of the borough's green cover to help mitigate and adapt to the impacts of climate change.

This strategy sets out our ambitions to:

- increase levels of physical activity;
- overcome physical severance and exposure to air, light and water pollution;
- create more cycle and pedestrianfriendly streets;

- enhance the public realm at key gateways;
- reduce flooding from rivers and surface water run-off;
- · remediate degraded environments;
- increase biodiversity and food production;
- celebrate our rich landscape heritage;
   and
- promote green tourism etc.

Over the next ten years, we aim to create more publicly accessible green spaces and areas of woodland than anywhere else in London, as well as new blue features, such as accessible waterways and wetlands.

Please join us on this journey.

Councillor Guney Dogan

Enfield London Borough Council, June 2021





# Executive summary: our ten year plan to protect & improve Enfield's blue & green network

### Where are we now

As an outer London borough, Enfield boasts some of the finest parks, gardens, woodlands and open spaces in Britain, attracting millions of visitors every year. It also boasts more than 100 kilometres of watercourses – more than any other London borough.

The open character of the landscape that surrounds the borough (including reservoirs, lakes and country parks) provides an attractive backdrop to the main urban area, with river corridors and greenways extending from the countryside (e.g. Trent Country Park) into the heart of existing urban communities.

However, access to the wider network is often restricted due to physical barriers, such as roads, railway crossings and rivers and the lack of open space within deprived wards. Population growth is also placing more pressure on our existing green spaces and natural ecosystems while our urban rivers are polluted and heavily engineered.

### Where we want to be

As Enfield continues to change and grow, we need to work with our partners to maximise the benefits of blue and green infrastructure for both people and wildlife. We want to work with you to help shape the future of our places and communities and create a greener, fairer and more inclusive borough.

This strategy aims to establish Enfield as a centre of excellence in the management and promotion

of blue and green spaces in London, helping to adapt and mitigate the impacts of climate change, improve health outcomes, encourage social interaction/physical activity, contribute to nature recovery and reduce inequalities.

The strategy covers all forms of blue and green cover in Enfield, ranging from large country parks and waterbodies to pocket parks, public art installations, street verges, trees and sustainable drainage systems. Key highlights of the strategy include:

- a commitment to move from net loss to net gain of open space and biodiversity;
- new targets and standards to guide open space provision, habitat creation and urban greening, targeting the most deficient areas (e.g. Edmonton and Ponders End);
- work to restore Enfield's waterspaces, creating healthy rivers with abundant wildlife, more resilient to flooding and drought;
- active management of our parks and open spaces to support our cultural agenda, with leisure activities that attract visitors (including festivals and outdoor events);
- work to better reveal the unique significance of our historic parks and gardens;
- making our streets and public spaces accessible to everyone through positive enhancements (e.g. new active travel routes and public parks) to anchor new developments, such as Meridian Water; and
- the creation of a new 'green loop' from the open countryside into the heart of our town centres and densely built-up-areas along river corridors and strategic links.

Our ambition is to be internationally recognised as the greenest borough in London at the cornerstone of London as a national park city (as described in figure 1 overleaf).

### How we will get there

This strategy will be implemented through the delivery of an action plan, which will set out how parks, open spaces, watercourses and other elements of the blue and green network will be protected and enhanced. Over the next ten years, we will:

- establish new partnerships (e.g. landowners, management teams, community groups and service providers) to effectively coordinate the delivery of blue and green infrastructure alongside new development;
- combine resources in a planned approach to projects and investment (e.g. match funding); and
- explore future opportunities (e.g. projects) to extend the network and better manage resources and income over the long term.







Enfield's Blue and Green Strategy (2021-2031

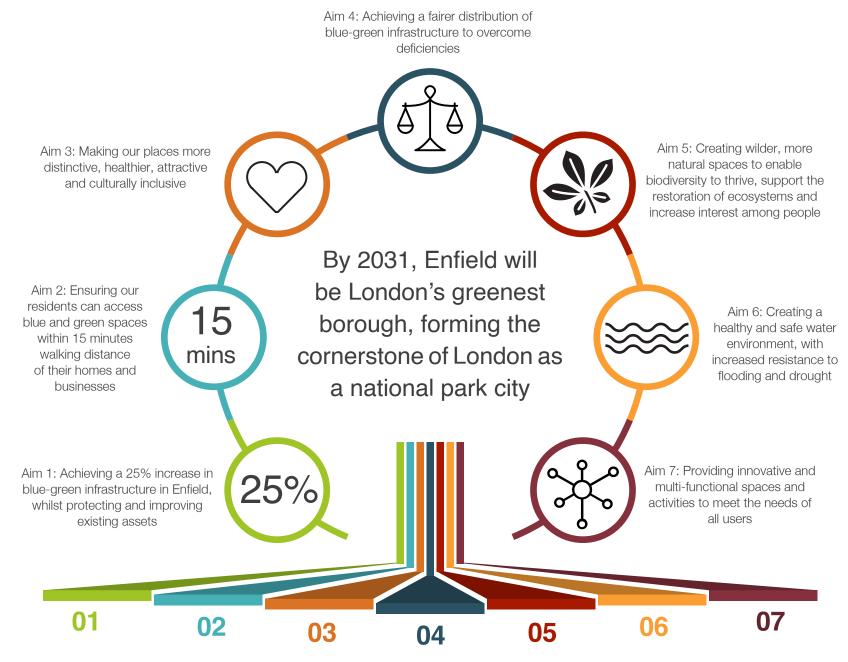


Figure 1: Shared vision and aims





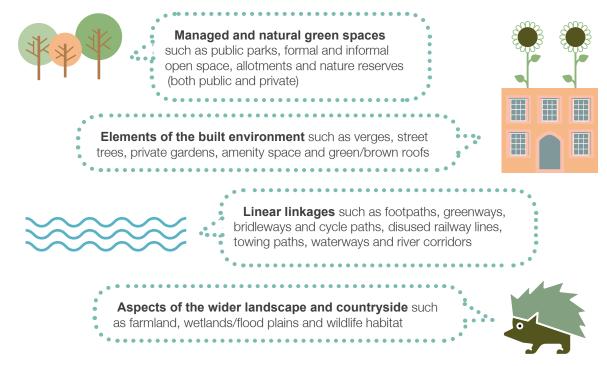
## 1 Introduction

# 1.1 What is the purpose of this strategy?

- **1.1.1** This strategy sets out how the borough's open spaces, habitats, landscapes and water assets will be protected, maintained, enhanced and expanded over the next ten years.
- 1.1.2 The overall aim of the strategy is to develop an inclusive and integrated network of blue and green infrastructure across the borough and beyond, which is recognised at a national and international level because of the quality of our parks, open spaces, routes and attractions. This will help us achieve our ambition of becoming the greenest borough in London.

### **1.1.3** This strategy sets out:

- a 10-year vision to guide the future planning and delivery of the borough's blue and green network;
- where blue and green infrastructure investment will be directed across major growth areas (e.g. Enfield Town, Edmonton Leeside, Edmonton Green, New Southgate and Ponders End) and the wider network;
- the opportunities to improve and expand the network through new initiatives and programmes;
- detailed guidance to steer the amount, scale, location and timing of blue and



**Figure 2:** Elements of the built environment such as verges, street trees, private gardens, amenity space, living walls and green/brown roofs

- green infrastructure in association with new development, including the borough's flagship programmes (e.g. Meridian Water and Joyce and Snells); and
- the operational requirements of our various service functions, including on-going maintenance and management.

# 1.2 What is the borough's blue and green network made of?

1.2.1 Enfield's blue and green network is composed of a range of natural and semi-natural features, greenspaces, designed landscapes. rivers and lakes, reservoirs and ground water aquifers that intersperse and connect our rural villages and









urban communities. These elements range in scale, from street trees, green roofs and private gardens within individual sites, through to grounds of former grand estates and historic houses, country parks, wetlands, forests and agricultural land extending from the urban/rural fringe into the wider countryside, as summarised in Figure 2 above.

### 1.3 What are the benefits of blue and green infrastructure?

- As explained in section 2 below, blue and green infrastructure offers a range of functions and services which are vital to our life support system. Widely recognised benefits of the blue and green network include:
- healthier lifestyles and behaviour through physical activity and active participation (e.g. walking, jogging and cycling)1;
- · carbon dioxide offsetting (e.g. woodland creation) and climate change resilience;

- renewable energy generation (e.g. thermal heat and micro-hydro);
- ecosystem functions (e.g. soil formation and pollination etc)
- cleaner air and water:
- storm and flood risk management (e.g. water storage);
- · visual and aesthetic appreciation (e.g. built and natural heritage);
- proximity to nature (e.g. native species and habitats);
- · biodiversity gain (including the extent and quality of habitat):
- ecological resilience (as part of nature recovery networks);
- · reduced crime and antisocial behaviour (e.g. well-designed and maintained greenspaces);

- community engagement and social interaction (e.g. events, gatherings and meetings);
- fostering local identity and pride;
- play and relaxation (including quiet contemplation);
- improved mental health and wellbeing, such as reduced stress and anxiety (e.g. interaction with nature);
- shading and cooling (e.g. trees) to reduce the heat island effect:
- sustainable food production (e.g. organic, locally grown produce);
- green tourism and culture.

### Why do we need this strategy?

Building on these qualities, this strategy sets out how we effectively plan and coordinate the



### Meeting the needs of Enfield's growing population through coordinated action

Like other parts of London, Enfield will need to deliver a step change in the delivery of new homes, jobs and supporting infrastructure to meet the needs of its growing population over the next decade and beyond. This includes the enhancement of our existing assets and the provision of new open space, sport and recreation facilities and improved links to existing parks and watercourses.

We have embarked on an ambitious programme of regeneration and development, centred on our town centres (e.g. Enfield Town, Southgate and Edmonton Green) and the redevelopment of public housing estates and former industrial areas (e.g., Meridian Water) alongside supporting infrastructure (e.g. play space and tree-lined streets).

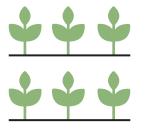


### Health & well being

Now more than ever before, equitable access to high-quality green spaces is vital to promoting healthier lifestyles, especially in response to the covid-19 pandemic. There is increasingly compelling evidence showing that access to blue and green spaces really matters to our health and wellbeing. People with better access to greenspace enjoy a wide range of health benefits from lower levels of cardiovascular disease through to maintaining a healthier weight and reduced levels of depression. Disadvantaged groups appear to gain a larger health benefit and have reduced socio-economic related inequalities in health when living in greener communities, so greenspace and greener urban environment can also be used as an important tool in the drive to build a fairer and more equal place<sup>2</sup>.

In Enfield, around a fifth of adults are estimated to have depression or anxiety, while one tenth of children and young people are estimated to have a mental health disorder<sup>3</sup>. Around two thirds of adults, two fifths of 10-to-11-year-olds and a quarter of 4-to 5-year-olds in the borough are classed as overweight or obese<sup>4</sup>. This comes at both a human and financial cost: the estimated annual cost of common mental disorders (depression or anxiety) in Enfield is £98 million.

As with the rest of the UK population, much of the burden of ill-heath in Enfield could be prevented through the creation of greener, less polluted and physically active spaces.



### Building on our existing successes & assets

From food production to drinking water supplies, Enfield boasts a wealth of natural and man-made resources, including some of the largest areas of open space and waterspace in London (e.g. Lee Valley Regional Park). It has five parks on Historic England's national register of historic parks and gardens and many more on the borough's list of heritage assets.

By virtue of its access to important transport routes and energy sources, Enfield continues to play a key role in the development of London as a global powerhouse, producing and transporting important goods and services (e.g. water supplies and food production) across the south east of England and beyond.

London has also recently been declared the world's first 'national park city' in recognition of its open spaces, biodiversity and water spaces<sup>5</sup>.

We have a strong track record of working across the public, private and voluntary sectors to drive forward innovation and investment, including the London strategic sustainable drainage systems pilot and the Environment Agency's natural flood management programme at Salmons Brook. We are also working with academics and practionneers to develop a systems-based approach to water/land management and climate resilience in the borough<sup>6</sup>. Enfield is also home to some of the largest environmental projects in London, including woodland restoration and rewilding at Enfield Chase and natural flood management at Salmons Brook.

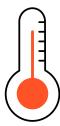
By preparing this strategy, we aim to become an exemplar of green living and working in London.











### Combating the effects of climate change & future challenges to Enfield's environment

Recent research predicts that Enfield's climate in 2050 will resemble Barcelona's climate now<sup>7</sup>. As the borough's climate gets warmer, we will experience more and more extreme weather events, such as storms, floods, droughts and intense heat waves.

Wildlife loss has accelerated in recent years (largely as a result of global warming) and several priority species in the borough are under threat of extinction, especially amphibians (e.g. great crested newts) and migratory birds (e.g. bitterns). However, many of Enfield's lost or endangered species (e.g. water voles, otters, beavers, storks and goshawks) can be reintroduced into the wild.

Air quality levels in the borough continue to exceed legal limits, especially along congested roads like the A10, A110 and A406 due to traffic fumes.

In response to this crisis, the Mayor of London has developed a 2050 vision to make London the greenest city in the world. Ambitious targets include making London zero carbon and at least 50% green space<sup>8</sup>.

Enfield has also declared a climate emergency and is committed to becoming a carbon within the next twenty years (as set out in the Climate Action Plan). As part of this commitment, there is a target to plant over 300 hectares of publicly accessible woodland in the north and west of the borough, capturing around 234 tonnes of carbon dioxide (per hectare) per annum.

Significant levels of infrastructure investment (e.g. new parks, areas of habitat and playspace) will also be required to support the needs of the borough's rising population and address deficiencies.



### Using our blue & green assets as an investment tool

Enfield's blue and green assets (as described in section 2 below) provide hundreds of million pounds of economic benefits, such as increased property values, visitor numbers, green jobs and business occupancy rates.

Due to its location on the edge of the open countryside and its links to Hertfordshire, Essex and other parts of London, Enfield is well placed to capitalise on the opportunities associated with its proximity to water, open space and nature through new development.



### Sharing the benefits across Enfield: narrowing the environmental gap between rich & poor neighbourhoods

Enfield has relatively high proportion of greenspaces per head of population but there remains a significant disparity between affluent wards (in the west) and deprived wards (in the east) in terms of access to public open space and nature. Deprived wards (in the east) also face severe environmental challenges associated with more densely populated housing estates and former industrial sites, such as poor quality public realm and inaccessible amenity space.

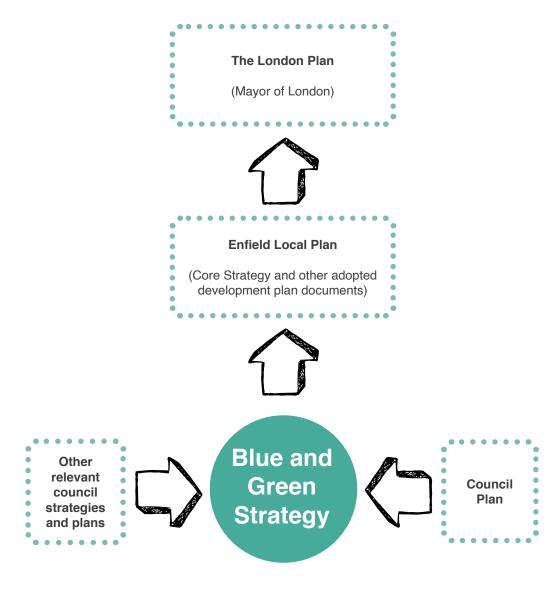


Figure 3: Relationship between the strategy and other relevant plans and programmes

provision of blue and green infrastructure across the borough, based on the reasons cited below.

# 1.5 How does this strategy relate to other strategies and programmes?

- 1.5.1 This strategy sets out further detail on the policies relating to the protection and enhancement of the borough's network of blue and green assets set out in the adopted Local Plan: Core Strategy, Development Management, Edmonton Leeside Area Action Plan, North East Enfield Area Action Plan and North Circular Area Action Plan.
- 1.5.2 This strategy has been prepared alongside other relevant strategies and plans, including the Biodiversity Action Plan, Housing and Growth Strategy, Local Flood Risk Management Strategy, Health and Well Being Strategy, Playing Pitch Strategy, Heritage Strategy, Parks and Open Spaces Outdoor Events Policy, Tree Management Strategy and Climate Action Plan.
- **1.5.3** The relationship between these documents is presented in figure 3.

### 1.6 How is this strategy structured?

**1.6.1** This document sets out our long-term approach to protecting, maintaining and enhancing the borough's blue and green infrastructure network. The sections forming the strategy are presented in figure 4.



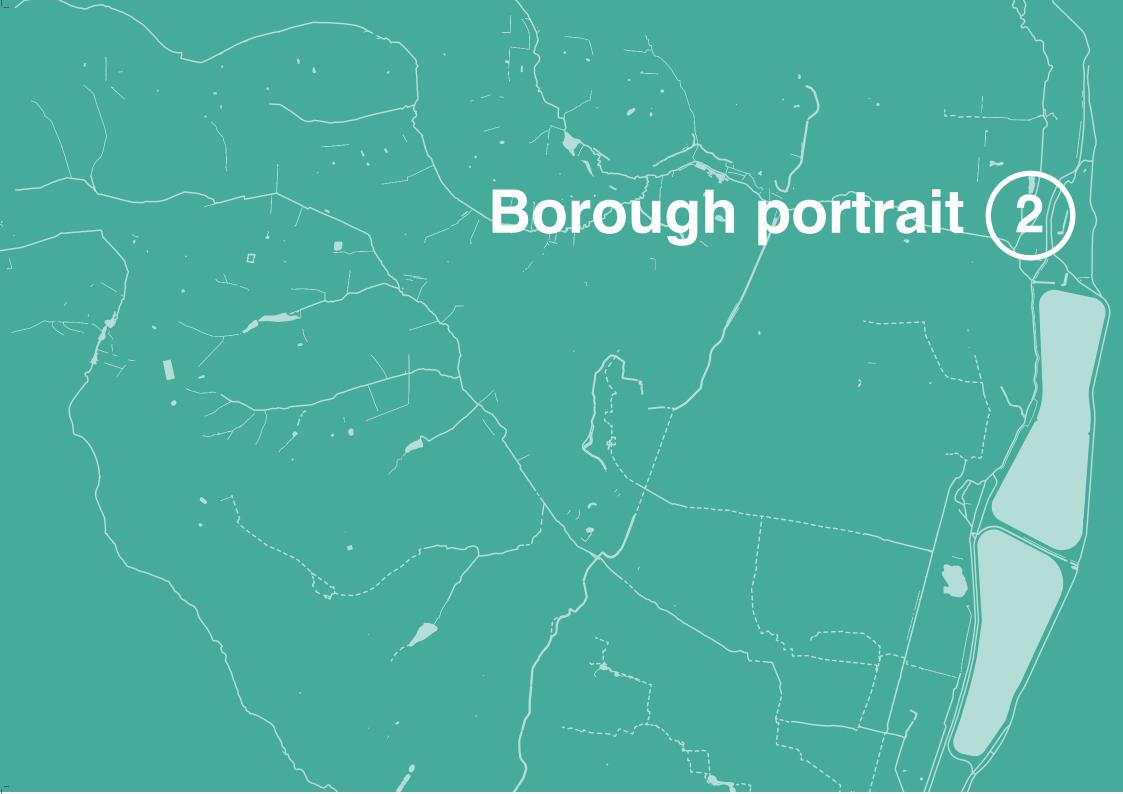
Figure 4: Structure of the strategy

- **1.6.2** Alongside this strategy, we have published the following supporting documents:
- Blue and Green Infrastructure Audit: This
  provides an an up-to-date audit assessment
  of the borough's blue and green network,
  including open spaces, water spaces, green
  grid links and heritage assets. It also outlines
  the standards against which progress towards
  the actions of the strategy will be measured,
  especially where there are gaps in provision.
- Review of the Biodiversity Action Plan: This updates the existing objectives of the

action plan to ensure they remain relevant up-to-date, in light of baseline conditions, and highlights progress made since its publication.

- Review of Sites of Importance for Nature Conservation: This assesses the status, condition and value of existing wildlife sites and identifies opportunities to upgrade, extend or amend boundaries to establish new
- habitats through positive management and enhancement.
- Parks and open spaces
- **1.6.3** A glossary of terms is provided at the back of this document (see appendix 2).
- **1.6.4** We will also publish a detailed action plan setting out how the vision and aims of the strategy will be achieved.





# 2 Borough portrait

### 2.1 Enfield in the wider context

- 2.1.1 London's northern most borough, Enfield lies on the edge of the open countryside and forms part of a wider network of open spaces, routes and watercourses, extending from the Lee Valley Regional Park to Hertfordshire, with good links to Central London and the wider south east (see figure 5).
- 2.1.2 The eastern part of the borough lies in the valley of the River Lea (which includes parts of the Lee Valley Regional Park). The western half of the borough lies on higher ground and includes a mix of undulating parkland (including the grounds of former grand estates and historic houses) and farmland.
- 2.1.3 Enfield also lies within close proximity to nationally or internationally important nature conservation sites, including Epping Forest (Special Area of Conservation), Lee Valley (Special Protection Area) and Broxbourne Woods (National Nature Reserve).

### 2.2 People

- 2.2.1 Despite an ageing population, Enfield is younger compared to the rest of London and the UK. It is also becoming more diverse, largely thanks to inward migration from other parts of the UK and abroad. Over a third of the borough's residents are under the age of 18.
- **2.2.2** Research suggests that people living in urban areas with more greenspace tend to be happier and experience lower levels of mental

stress compared to those areas with less greenspace. Nevertheless, access to open space and nature varies considerably across the borough: the amount and quality of public parks and open spaces in deprived wards much worse than in more affluent wards.

**2.2.3** Average life expectancy in the borough is higher than the London and national average but there is wide variation between affluent wards in the

west and deprived wards in the east. Enfield also has some of the highest levels of obesity in London, especially among children and young adults.

2.2.4 As Enfield's population gets older and requires more long-term care and support, we need to rethink how blue and green spaces are used, enjoyed and designed to meet the needs of residents, especially those with mobility difficulties (e.g. wheelchair users).

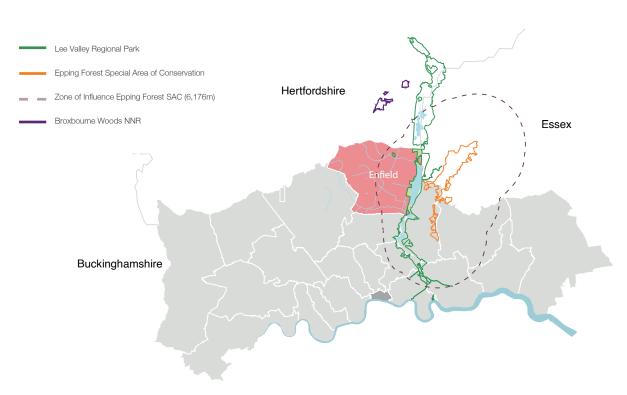
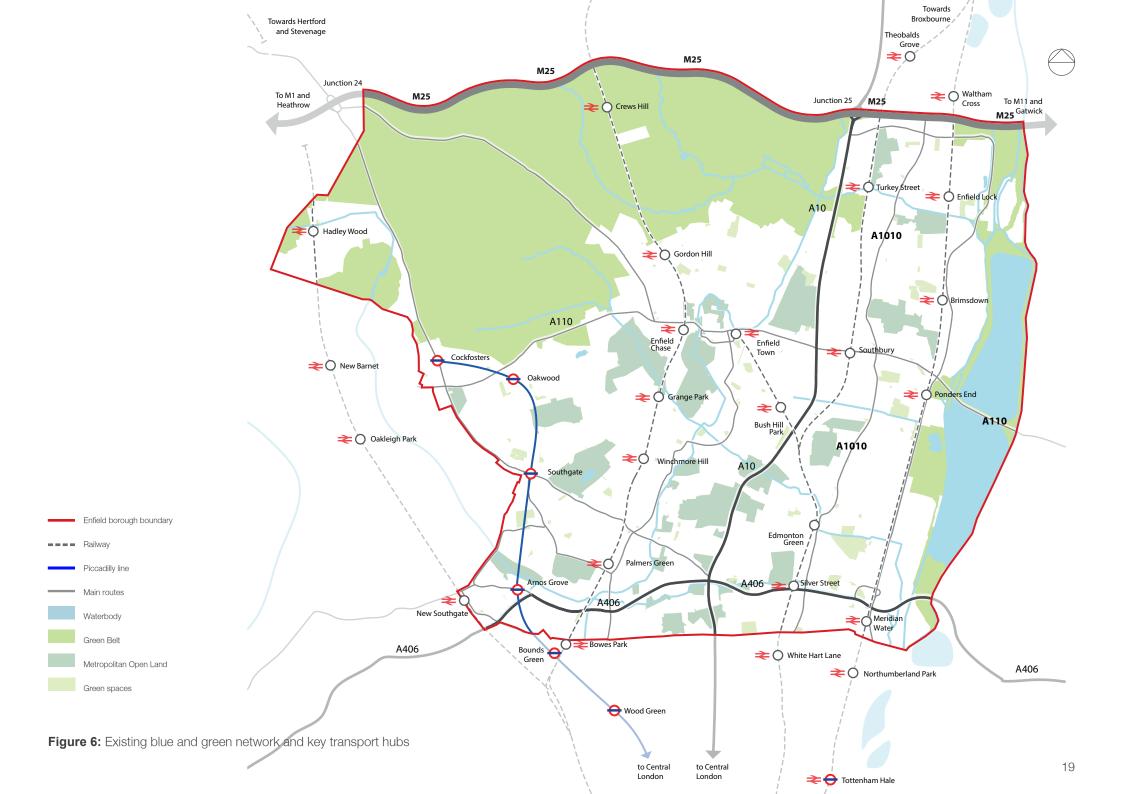


Figure 5: Boundaries of key cross boundary networks



### 2.3 Places

- **2.3.1** Despite being one of the most populous boroughs in London, Enfield is remarkably green and borders on large expanses of water and open countryside (as illustrated in figure 6).
- 2.3.2 Enfield has developed from a traditional rural enclave into a teeming urbanised environment, including green and leafy suburbs, vibrant town centres and large public parks. The open character of the borough provides an outstanding natural backdrop to several key visitor attractions and development sites.
- 2.3.3 Enfield's parks and open spaces range from large county parks and river valleys through to small-scale amenity areas and enclosed pocket parks in more built-up-areas. These spaces also support a wide variety of species and habitats.
- 2.3.4 Covering over a third of the borough's land area, the Green Belt (as shown on figure 6) is a protected area of open land around the edge of the main built-up area and contains areas of high landscape quality and historic value. Notable attractions include Enfield Chase (a former royal hunting ground and deer park), Capel Manor and the registered gardens of Trent Park, Forty Hall and Myddelton House.
- 2.3.5 Water is a distinctive feature of the borough's landscape/townscape (see figure 6) and continues to serve the growing demands of London's population. This includes an extensive network of canals (River Lea Navigation), rivers (River Lea), reservoirs (William Girling and King

George V) and lakes. This reservoir chain supplies much of London's drinking water which is collected from the River Lea. The remainder is abstracted from the aquifer underneath north east London (including parts of Enfield).

2.3.6 Enfield's urban river network is, however, largely hidden from view (due to culverts or diversion into underground sewers) and inaccessible. The New River – a man-made

watercourse built in the seventeenth century to bring fresh water from Hertfordshire to London – is a rare exception to this (see figure 22). The River Lea and its tributaries (Salmons Brook, Turkey Brook and Pymmes Brook) flow through the heart of Enfield's emerging growth areas (Meridian Water, Enfield Town, Edmonton Green and Ponders End) where there are significant opportunities to reconnect people and nature to the waterfront (e.g. new footpath and cycle routes).



Figure 7: Bury Lodge Wetlands



of the borough lies within designated Green Belt and Metropolitan Open Land.



Street trees and 365
Tree Preservation
Orders



of open water; the highest amongst London boroughs



of public footpaths

and bridleways

 $\bigcirc$ 

13 million

Visitors to Enfield's parks and open spaces (per year)



hectares of parks and open spaces (the second largest expanse in London and equivalent to 1925 football pitches)

# 41 sites

of nature conservation importance (including nationally designated sites at Covert Way and Chingford Reservoirs)



sites in Historic England's register of historic parks and gardens and many more on the local list of heritage assets



and scrubland



Hectares of native woodland (of which 122 hectares is 'classified as 'ancient') and 30 hectares of species rich grassland.



reservoirs (King George V, William Girling, Grovelands Park, Trent Park and Cockfosters) and 6 freshwater lakes.



2.3.7 Enfield contains several priority habitats (e.g. grasslands and wet woodland) and species (e.g. bats, amphibians, reptiles and black poplar), mostly concentrated in the open countryside but also scattered across semi-natural corridors, such as railway lines and watercourses. Figure 10 overleaf shows the broad distribution of sites of nature conservation importance across the borough as well as opportunities to extend existing or designate new sites of nature conservation

importance.

2.3.8 The King George V and William Girling reservoirs (known collectively as the Chingford Reservoirs) form the eastern boundary of the borough and are designated as Sites of Special Scientific Interest due to their nationally important populations of rare wildfowl and wetland birds. This represents one of the largest and undisturbed areas of open water habitat in London.

- **2.3.9** The table overleaf sets out an analysis of the strengths, weaknesses, threats and opportunities facing the borough's blue and green network.
- **2.3.10** Forty Hall, one of the finest country estates in England, is a rare survivor of an intact eighteenth century landscape, with an ornamental lake, water gardens, a walled garden and an extremely rare ornamental farm (ferme ornée).



Figure 9: Forty Hall



Figure 10: Broad distribution of nature conservation sites across the borough

# STRENGTHS



- Expanding network of cycle routes along key arterial roads (e.g. A105 and A110) and walking routes, including parts of the London Loop and Lee Valley Walk
- Extensive areas of open space and water space of significant amenity and environmental value
- Good quality and well-maintained public parks (e.g. Forty Hall has green flag status)
- Large number of playing pitches and sport courts
- High levels of satisfaction (two thirds of residents are satisfied with how our parks and open spaces are run and managed)
- Higher than average food-growing provision: Enfield currently has around a tenth of London's allotment land.
- Landscapes of significant heritage and cultural value (Many conservation areas contain extensive green spaces or important incidental spaces, often formed as part of planned estates.
   Important historic landscapes also exist at Myddelton House, Capel Manor and West Lodge Arboretum)

- Internationally and nationally important scarce plant and animal species (e.g. great crested newt and black redstart) and nationally scarce habitats (e.g. acid grasslands and watercourses).
- Building resilience to climate change (e.g. flood risk mitigation and warning systems)
- High proportion of woodland compared to the London average
- Good track record of delivering successful events and festivals
- Burgeoning industries and maker spaces (e.g. Enfield is recognised as a national centre of agricultural and horticulture excellence)
- World-class sport and leisure venues at Picketts Lock (the largest indoor and outdoor athletics centre in South East England) and Hotspur Way (Tottenham Hotspur training ground)
- Extensive network of public paths and cycle lanes

- East-west severance due to physical barriers (e.g. A10, A101, A1010, A1055 and level crossings/railway lines) and lack of direct routes to the Lee Valley Regional Park<sup>9</sup>
- Uneven distribution of parks and open space (e.g. children's play space).
   Deficiencies are acute in the eastern corridor (e.g. Edmonton Leeside) and parts of north east Enfield (see figure 11)
- Shortfalls of burial space (e.g. cemeteries).
- Significant deficiencies across the urban area in terms of access to open space and nature (notably deprived wards in the east).
- Some greenspaces and waterspaces are privately owned, like railway lines and reservoirs, and have limited (e.g. Forty Hall and Myddelton House Gardens) or no access.
- Lack of quality outdoor playing pitches, all weather/floodlight surfaces and changing facilities.
- Lack of publicly accessible open space in densely built-up-areas (including outdoor sports)
- Lack of outdoor performance and distinct public spaces (e.g., town centres)
- Poor arrival experience from gateways (e.g.

- Enfield Chase, Southbury and Enfield Town)
- Higher prevalence of childhood obesity than most London boroughs
- Stark health inequalities (for instance, children from low income households are more than twice more likely to be obese than those in higher income households).
- Low levels of physical activity and sport participation
- Polluted watercourses along Salmons Brook, Pymmes Brook and the River Lea (due to road run-off and sewage discharge)
- Lack of active woodland management and good quality farmland (e.g. reliance on subsidies).
- Absence of greenery in densely populated urban areas (e.g. Edmonton, Edmonton Green and Southgate) and remote industrial areas
- Water quality: A number of Enfield's watercourses remain in culvert and have poor ecological status
- Pollution of surface and groundwater bodies as a result of drainage misconnections and historic land contamination in industrialised areas.

Enfield's Blue and Green Strategy (2021-2031)

Adopted version

# OPPORTUNITIES



- Green tourism activities (e.g. recreation)
- Maximising the health and economic benefits of high-quality blue-green spaces
- Improving the accessibility and connectivity
  of the network to create strategic links
  between Enfield and other parts of London
  (e.g. Lee Valley Regional Park and Epping
  Forest) and beyond
- Providing safe legible access to play and recreational opportunities (especially in shared spaces) and better connect spaces with residential communities
- Creating new spaces (e.g. green roofs and mini forests, pocket parks) within high density/walls residential estates, particularly around tall buildings
- Increasing food production (e.g. allotment land) and sustainable/agroecological farming on existing farmland to support a 'grown-in-Enfield' food brand
- Increasing active participation through volunteering and training programmes
- Overcoming open space deficiencies and route fragmentation through new development, especially in deprived areas
- Improving the quality of housing and shared spaces (by way of new open space and accessibility standards)
- Reusing underutilised/disused land to grow food (e.g. community orchards) and

- create new meeting spaces, especially in densely built-up areas, such as Edmonton, Southgate, Enfield Wash and Enfield Town
- Shifting investment from grey-to-green infrastructure, transforming our streets into attractive tree-lined boulevards, particularly at gateway locations (e.g. interchanges)
- Creating an urban forest environment treelined streets, new areas of native woodland and food-growing sites
- Expanding the woodland estate from the M25 motorway to Trent Park, Whitewebbs Park and the Lea Valley Regional Park
- Encouraging active water-dependent uses (e.g. mooring sites, outdoor swimming, fishing and kayaking)
- Outdoor sports provision: latent demand remains high and presents opportunities to increase participation
- Improving air quality at key junctions (e.g. M18, A1(M) and M180 motorways)
- Reconnecting existing A10/A1010
   communities to open spaces and watercourses in the Lee Valley Regional Park
- Potential opportunities to enhance sites of national conservation importance through positive management, including designation of new sites (see figure 10)
- Enhance historic landscapes (e.g. Grovelands, Broomfield, Trent Park, Forty Hall and Whitewebbs)

- Budgetary pressures arising from ongoing maintenance and management of buildings and assets
- Increasing development and land use pressure (especially in the Lee Valley)
- Increasing water loss due to aging pipe networks, climatic impacts and over consumption
- Strong correlation between health inequalities, open space deficiencies, poor quality environments and levels of deprivation
- Potential adverse effects from pollution and increased recreational activities on the conservation status of the Epping Forest Special Area of Conservation, Walthamstow Reservoirs SSSI and Lee Valley Special Protection Area.
- High exposure to air pollution (N02 and PM10) from traffic congestion along key arterial routes (e.g. A10 and A101). As a result, the entire borough has been declared an "air quality management area".
- Enfield's low-lying topography and urban form makes it vulnerable to the effects

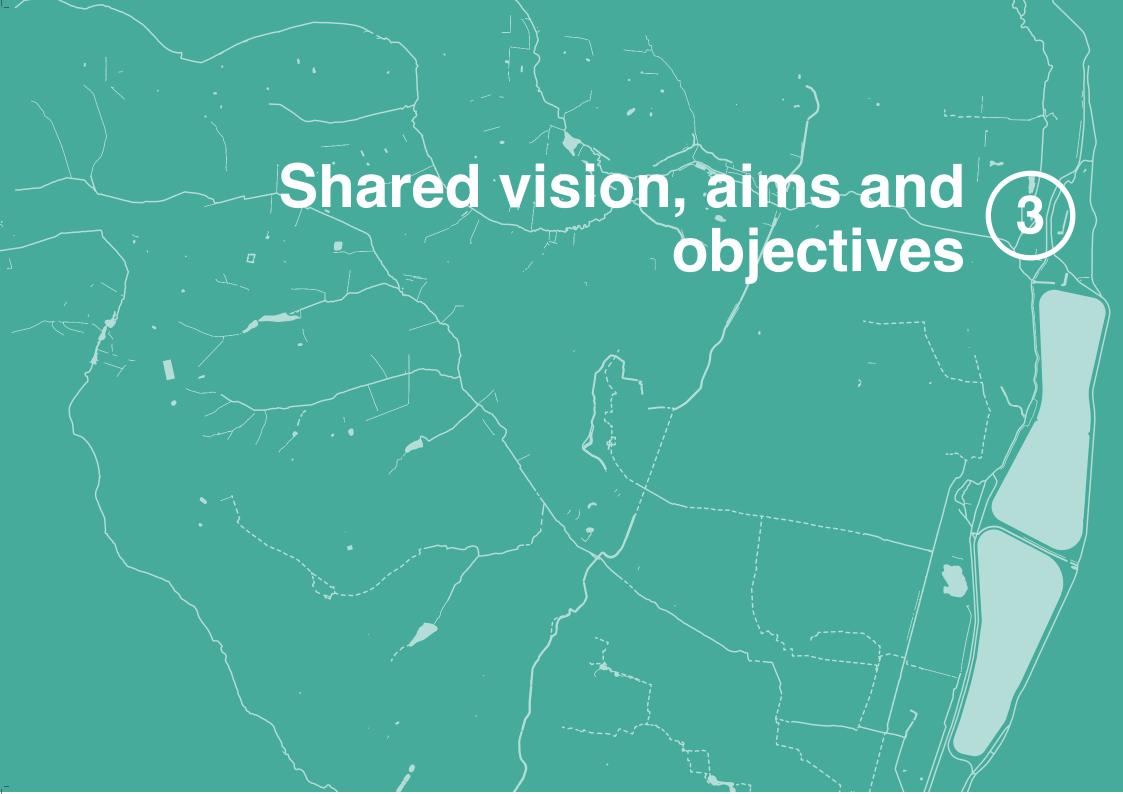
- of climate change, particularly from river and surface water flooding and the urban heat island effect.
- Poor ecological status of some rivers and reservoirs
- Some historic parks and gardens are on the national register of heritage at risk (e.g. Grovelands Park, Broomfield Park and Trent Park) and require careful restoration
- Fragile ecological heritage (e.g. Trent Park)
- Future growth will be directed towards areas that are subject to high flood risk, particularly along the eastern corridor (Lee Valley) and A406<sup>10</sup>.
- High proportion of residential and commercial properties at risk of flooding (e.g. 5 hospital sites and 19 schools)
- Insufficient food-growing spaces (some allotment sites are close to full capacity and have waiting lists).
- Threat of development pressure
   (especially high-density housing) on
   existing blue and green assets
- Presence of land contamination within or close to the Lea Valley Regional Park
- Aging tree stock (e.g. parks)





Figure 11: Areas of open space and deficiency in access to nature





# 3 Shared vision, aims & objectives

### 3.1 Our shared vision

**3.1.1** The following outlines our vision on the future development of the borough's blue and green network.

By 2031, Enfield will be London's greenest borough, forming the cornerstone of London as a national park city.

**3.1.2** Achieving this vision will bring a great number of benefits to our people and places. Some of the highlights are summarised below.

### Our people



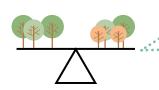
People in the borough will live longer and healthier lives, benefiting from cleaner air, water and improved access to open spaces and water spaces. Obesity rates will be closer to the London average.



Visitor numbers will exceed expectations and community involvement in the care and management of our parks and open spaces will be nationally recognised.



Levels of physical and recreational (e.g. cycle usage) and sports activity will match or exceed London and national averages. The longstanding gap between affluent (in the west) and deprived (in the east) wards in terms of access to open space, nature, sport and recreation facilities will have narrowed.



The longstanding gap between affluent (in the west) and deprived (in the east) wards in terms of access to open space and nature will have narrowed.

### Our places

A new continuous walking and cycling route (known as the 'greenloop') will extend from the open countryside along the river valleys and existing movement corridors into the main urban area of Enfield.



A network of green links will be created/enhanced within the loop to connect urban centres with blue-green spaces.



The arc of open countryside to the north and west of the main built-up area will be transformed into a publicly accessible parkland landscape, with over 300 hectares of new native species woodland (known as "Enfield Chase").



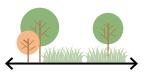
The Lee Valley Regional Park (London's largest open space and visitor attraction) will encompass new linear parks, routes, wetlands, water sport facilities and play spaces alongside high-density industry and homes, bringing nature into the heart of our urban communities.



Enfield's streets and public areas will be significantly greener, safer and more active. In residential neighbourhoods, cars will no longer be the dominant mode of travel.



Sustainable drainage systems and street trees will align key routes leading into town centres and activate the public realm at key transport interchanges.



Enfield's historic landscape will be more accessible to visitors and its assets will be better revealed, interpreted and managed



Enfield's Blue and Green Strategy (2021-2031)









- Building upon our existing strengths, as 3.1.3 outlined in table 1 above, we aim to go further than the Mayor of London's target of achieving 50% green cover across the borough.
- **3.1.4** Section 3.2 below explains how this vision will be delivered.

### **Aims & objectives**

In order to achieve this vision, we have established the following aims and objectives:

Aim 1: Achieving a 25% increase in bluegreen infrastructure in Enfield, whilst protecting and improving existing assets<sup>11</sup>

- a Avoid the net loss of open space, biodiversity and water space, whilst achieving net gains (e.g. increasing tree/woodland cover and creating new habitat)
- **b** Create new high-quality parks and open spaces (e.g. play spaces) in association with new development, especially within areas with limited green cover (e.g. Ponders End, Meridian Water and parts of the Lee Valley)
- c Retrofit blue-green infrastructure (e.g. green roofs, wildflower gardens and sustainable drainage systems) within estate regeneration schemes, former industrial locations and underused sites
- d Maximise the positive benefits of the Green Belt, Metropolitan Open Land and other types of open space and improve the quality of the

- landscape on the urban fringe, including carbon sequestration and rewildling opportunities
- e Restore and enhance historic parklands and associated visitor attractions
- f Improve the quality, function, accessibility and value of our green spaces and water spaces (taking account of current and future needs)
- g Main and expand the blue-green network through provision of private gardens, amenity space and verges.

Aim 2: Ensuring our residents can access blue and green spaces within 15 minutes walking distance of their homes and businesses<sup>12</sup>

- a Prioritise pedestrians, cyclists, equestrians and public transport users along our streets and spaces to reduce car use, improve safety and promote active travel.
- **b** Make use of passive and active recreation (e.g. well-designed playspaces) to improve physical health and reduce mental health problems
- c Expand and improve the network of active travel routes, especially along river valleys and waterways, connecting spaces together
- **d** Enhance east-west landscape connections along the arc of green wedges from the Lee Valley Regional Park to Trent Park, Whitewebbs Park, Enfield Chase, Enfield Town and Enfield Playing Fields

- e Improve public access to Lee Valley Regional Park and associated spaces (e.g. reservoirs and lakes)
- f Support people to make better use of our extensive network of public paths, especially through new developments (e.g. through better signposting, removal of overgrowth and conversion of footpaths into public use) and provide new inter-connecting paths to increase use/access to open spaces.

### Aim 3: Making our places more distinctive, healthier, attractive and culturally inclusive

- a Embed blue-green infrastructure into existing and new communities as part of new development using Sport England's active design principles<sup>13</sup>
- **b** Secure safe, welcoming and socially inclusive spaces and routes in line with 'secured-bydesign' principles that are easily accessible to all, including wheelchair users (e.g. better seating and external ramps/alternative means of access)
- c Reduce the impact of noise, light and air pollution through green spaces and other interventions (e.g. tree-lined streets)
- **d** Protect and enhance the open character and landscape/townscape quality of the borough's green and blue assets, especially within or close to key corridors, strategic nodes, designated areas and growth locations (e.g. social housing estates)

- e Improve the quality of the public realm (including the innovative use of street furniture and public art installations) and sense of arrival into the borough from key gateway locations, including connections to nearby open spaces
- f Improve the standard of management and ongoing maintenance to facilitate the long-term sustainability of projects, including investigating alternative funding opportunities as well as innovative complementary measures.

### Aim 4: Achieving a fairer distribution of bluegreen infrastructure to overcome deficiencies

- a Direct new investment to deprived communities and poor-quality environments so that everyone can access open spaces, nature and sport and recreation facilities close to where they live and work and can get involved in the design and layout of new blue-green infrastructure
- b Expand the network of open spaces and routes from the Lee Valley Regional Park into key growth areas: Meridian Water, Edmonton, Brimsdown, Enfield Lock and Ponders End
- c Maximise the opportunities to address deficiencies (e.g. access to nature) through the provision of high quality, publicly accessible open spaces, woodland, sport and recreation facilities, green grid routes and improvements to the existing network, particularly in the east of the borough (e.g. North East Enfield and Edmonton)

**d** Remove obstacles to east-west movement and create new links (e.g. bridging over roads, railways and rivers)

Aim 5: Creating wilder, more natural spaces to enable biodiversity to thrive, support the restoration of ecosystems and increase interest among people

- a Restore, expand and connect endangered, rare or threatened habitats and species (e.g. water voles, beavers and storks) and reduce deficiency in access to nature in line with the priorities set out in the Biodiversity Action Plan
- b Use blue-green infrastructure to create nature recovery networks, putting biodiversity and nature at the heart of our decision making alongside people's needs

- Promote the active management and conservation of designated and non-designated wildlife sites and woodland estates
- d Facilitate the ecological enhancement of existing parks and open spaces (especially within areas of nature conservation deficiency) and create new sites where opportunities arise (e.g. Enfield Chase)
- e Increase biodiversity on our streets, open spaces and major roads (particularly adjacent to the North Circular Road and A10) through treeplanting/replenishment, wildflower meadows and grass verges (e.g. pollinators)
- f Work with landowners and the public to address and reduce the spread of invasive species (e.g. Japanese Knotweed and Himalayan Balsam),



Figure 12: Tai chi lesson at Forty Hall









chemicals (e.g. pesticides and herbicides) and pests or diseases (e.g. plane wilt and ash dieback) that affect trees, meadows and scrubs in the borough

Aim 6: Creating a healthy and safe water environment, with increased resistance to flooding and drought

- a Restore Enfield's river corridors (Salmons Brook, Turkey Brook and Pymmes Brook) through wetland creation and flood risk alleviation
- **b** Support the delivery of integrated water management plans, achieving good ecological status of river and streams
- c Reduce the impact of surface run-off and fluvial flood risk downstream



Figure 13: Picnic in the park, Pymmes Park

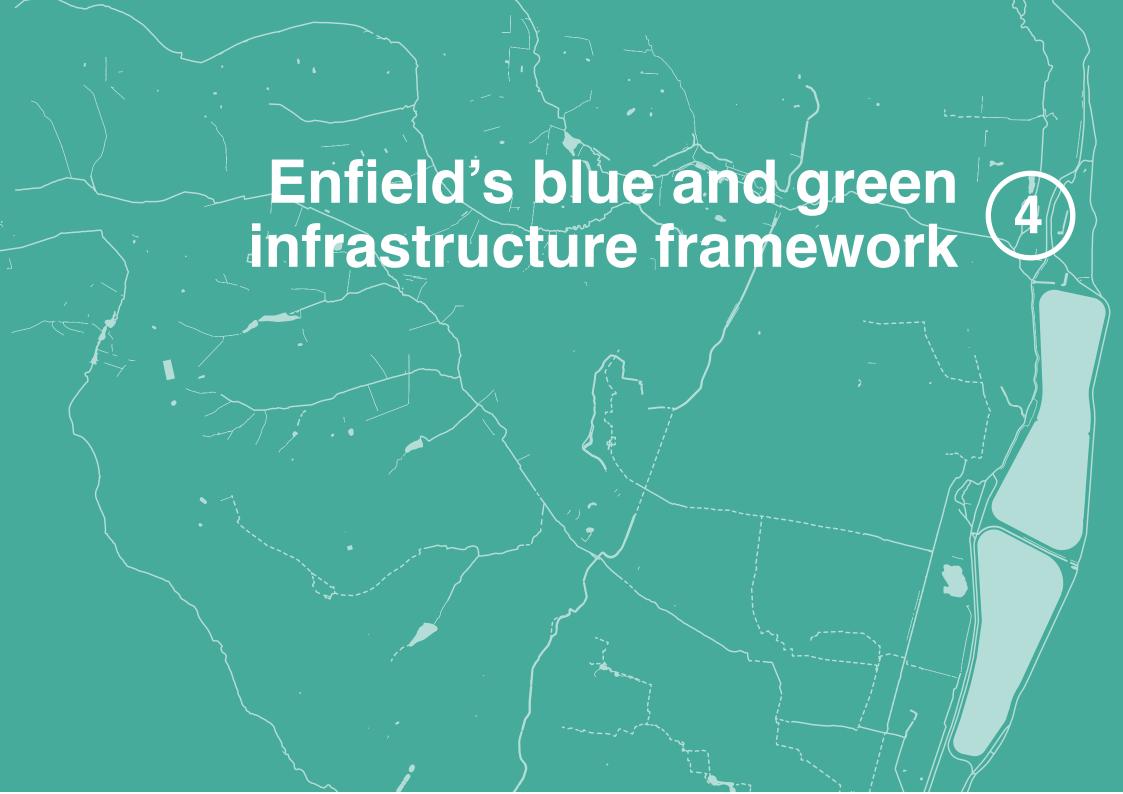
- **d** Revitalise sport and leisure activities at the waterside (e.g. Banbury, William Girling and King George's reservoirs, Picketts Lock and Ponders End)
- e Open-up and increase public access to the borough's watercourses (through deculverting and renaturalisation) and associated underused spaces along existing corridors, linking green spaces and tourist attractions in an attractive landscaped setting (including the New River)
- f Encourage a more diverse range of waterdependent activities along the borough's watercourses, such as outdoor swimming, bird watching, barges, moorings, walkways, slipways, bridges and tunnels where appropriate
- g Reduce or prevent water pollution and surface water run-off through the use of sustainable urban drainage systems in line with the principles set out in the Sustainable Drainage Design & Evaluation Guide
- h Protect the quantity of groundwater and its quality, including chemical status (e.g. correcting misconnected drains and monitoring discharges)

Aim 7: Providing innovative and multifunctional spaces and activities to meet the needs of all users

a Enliven public spaces using festivals, events, meanwhile uses and creative projects to celebrate the culture and heritage of the borough

- **b** Encourage more sustainable food-growing (e.g. market gardening, food café initiatives and temporary use of allotment/vacant land and organic farming) to facilitate physical activity, boost productivity and alleviate poverty/social isolation in line with best environmental practice
- **c** Foster a greater sense of community ownership and pride in the local environment, especially through partnership working, fund-raising and community-based events
- **d** Promote creative approaches to urban greening (e.g. street trees, living walls and green/brown roofs) to reduce the heat island effect and provide sustainable drainage, especially in areas of deficiency such as industrial areas
- **e** Enhance and promote the wider community use of existing sport facilities, protect existing facilities from future loss and secure new facilities (e.g. playing pitches) in the right locations to meet existing and future demand and address obesity/inactivity levels<sup>14</sup>
- f Facilitate the shared use/co-location of facilities and spaces, especially within accessible locations (e.g. sport priority sites and other community facilities)
- g Provide appropriate and safe facilities (including changing rooms, seating, signage, accessible pathways, playgrounds and cycle storage) within public parks to meet the needs of all ages, conditions and interests, where feasible





# 4 Enfield's blue & green infrastructure framework

### 4.1 Making best use of our multifunctional network

- 4.1.1 This section sets out our approach to protecting, enhancing and managing the borough's multifunctional network of blue and green infrastructure in line with the vision outlined above. It identifies:
- the key elements that make up the borough multi-functional network: corridors, spokes, nodes and important assets;
- the key areas of change where investment will be focussed to address deficits/surpluses and priorities across the borough; and
- a series of large-scale projects to deliver multiple functions and benefits across the wider network.
- 4.1.2 This network (as illustrated on the concept plan overleaf) encompasses a range of different types and functions, locations, sizes and levels of accessibility and use, at varying scales, from the strategic to the site-specific level, both in rural and urban areas.

# 4.2 Components of the borough's blue & green network: nodes, corridors, links & priority locations

**4.2.1** As shown on figure 14, Enfield's blue and green network is made up of the following components:

- a Strategic nodes
- b Corridors of activity and movement
- c Urban green grids
- d Strategic links
- e Strategic programmes

### a Strategic nodes

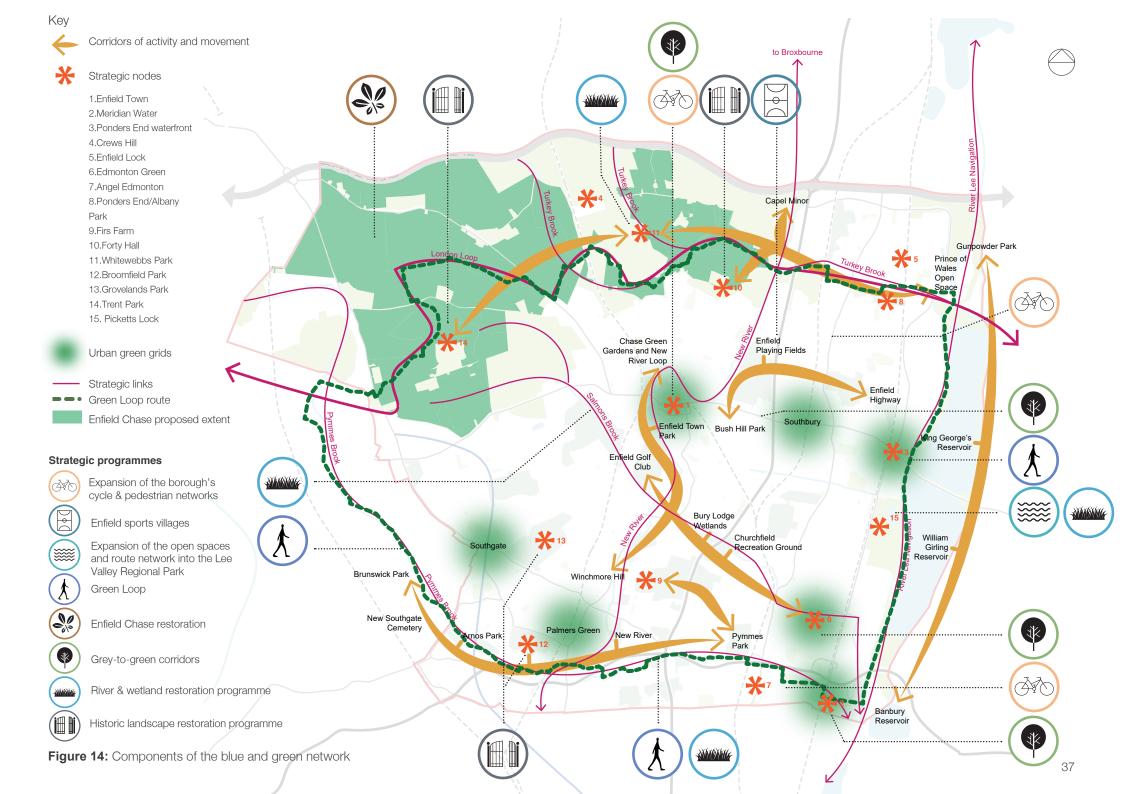
- **4.2.2** Definition: Strategic nodes (or hubs) are areas where the corridors and strategic routes of the blue and green network intersect.
- **4.2.3** These hubs will be at the heart of our town centres and other locations where there are major concentrations of community and commercial facilities. These include:
- public transport interchanges at key gateways (e.g. town centres);
- large industrial estates, especially where there is poor access to nature and recreational facilities;
- leisure and recreation hubs along historic waterfronts (e.g. Lee Valley);
- historic parks and gardens and associated visitor attractions; and
- major areas of wetland and woodland.

### b Corridors of activity and movement

**4.2.4** Future infrastructure interventions within

or close proximity to the strategic nodes will be focussed around improving the gateways leading into key visitor attractions (e.g. county parks) and town centres and links to other open spaces through a series of connectivity and public realm enhancements. This includes new pedestrian/cycle routes, meeting spaces, public art installations, cultural facilities and better signage/wayfinding.

- 4.2.5 Definition: Corridors are linear ribbons of blue and green spaces such as riparian rivers, recreational greenways, large areas of woodland and public parks. Existing railway lines also act as important linear green corridors that cross the borough that run north to south across the borough (e.g. London Overground and West Anglia Main Line). There are plenty of opportunities to create green corridors along the highway soft estate (e.g. species-rich verges, wetland swales and selective coppicing) and former industrial areas to attract a greater variety of wildlife and reduce noise and air pollution.
- **4.2.6** These corridors (otherwise known as the 'green lungs' of the borough) connect to the nodes and strategic links of the wider network and offer significant opportunities to increase green cover and improve access to existing assets.
- Enfield Chase: Whitewebbs Park to Trent Park
- Moore Brook: Pymmes Park to Firs Farm
- Turkey Brook: Prince of Wales Open Space via Albany Park to Capel Manor/Forty Hill
- River Lea/River Lea Navigation: Banbury



reservoir via King George & Willing Girling reservoirs to Gunpowder Park

- Great Cambridge Road: Enfield Highway, New River, Enfield Playing Field and Bush Hill Park
- Salmons Brook: Enfield Golf Club, Bury Lodge wetlands, Cheyne Walk, Churchfield Recreation Ground, Edmonton Green and cemeteries
- Pymmes Brook: Pymmes Park, New River, Broomfield Park, Arnos Park, New Southgate Cemetery and Brunswick Park
- New River: Winchmore Hill, Enfield Town Park, Chase Green Gardens and New River Loop

**4.2.7** Connecting these spaces together will help to:

- reinforce routes and create positive links to existing and new neighbourhoods;
- enable wildlife to move across the landscape and support ecosystem functions; and
- · create a more visually attractive environment.

4.2.8 New development within or immediately adjacent to the strategic corridor (as shown on figure 14) will be expected to incorporate appropriate landscape and green elements to reinforce and enhance the green and open

Figure 15: Pocket park in Haselbury Road

character of spaces and routes along its length. Schemes should include new native planting and, where appropriate, water features, ecological habitats, softening hard edges and so on.

#### c Urban green grids

- **4.2.9** Priority locations in the main urban area where there are significant opportunities to increase the amount of green cover (e.g. street trees, community gardens and green/brown roofs) and habitat.
- Enfield Town
- Meridian Water
- Southbury
- Southgate
- Palmers Green
- · Edmonton Green
- Ponders End
- **4.2.10** In addition, blue-green infrastructure interventions will be sought in areas outside of those specified on figures 14 and 17 and paragraphs above through the policies set out in the Local Plan and other relevant guidance, such as supplementary planning documents.

#### d Strategic links

**4.2.11** Definition: Multi-user and active routes (including long distance footpaths , and national



cycle lanes) which link communities to key services, open spaces, leisure designations and water spaces across the corridors of activity and movement. These links can also function as wildlife corridors to facilitate the migration of species and habitats.

London Loop

- New River Link (including an extension from Enfield Town to Broxbourne)
- Pymmes Brook Link
- Turkey Brook Link
- Enfield Link

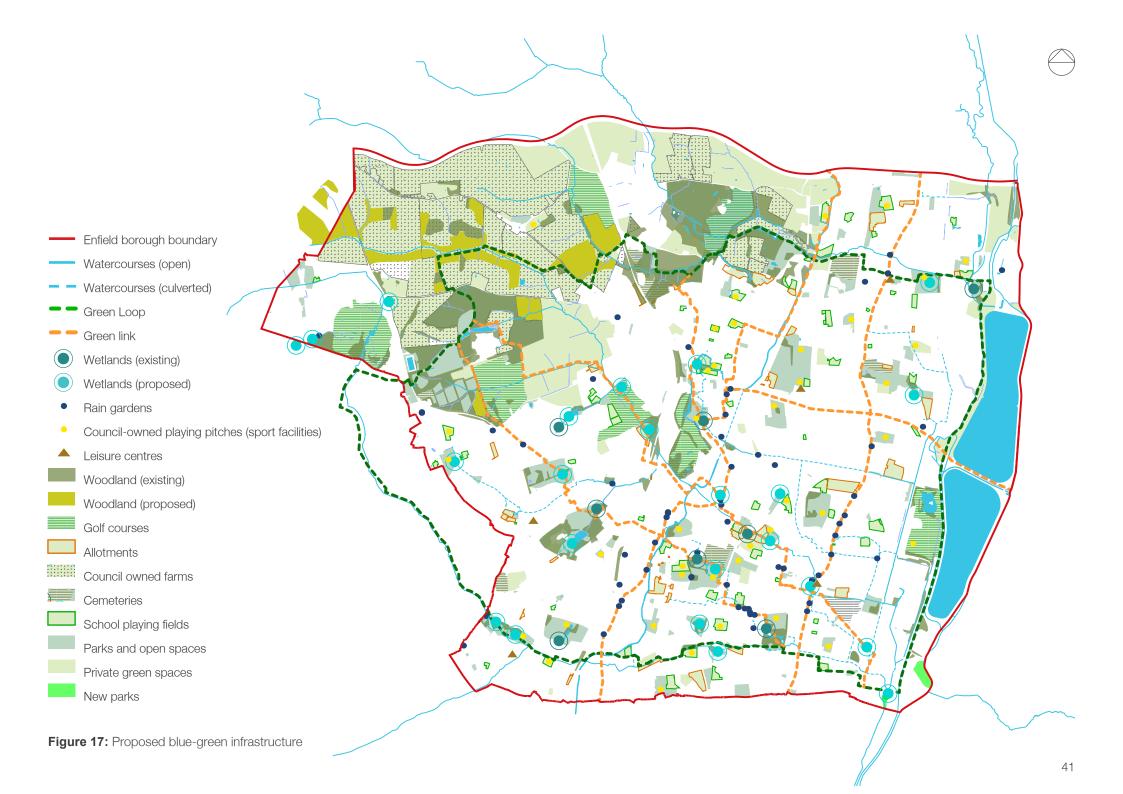


Figure 16: Tree planting at the Prince of Wales Open Space

- Salmon Brook Link
- · River Lea Navigation
- New River Path
- Lee Valley Walk
- Edmonton to Meridian Water Link (new)
- Enfield Chase to Crews Hill (new)
- Enfield Town to Southbury (new)
- **4.2.12** The figure also shows existing areas of open space, water space and nature conservation designations and the key planned interventions across the network (as explained in more detail in section 4.4 below).

#### e Strategic programmes

- **4.2.13** 8 strategic programmes have been proposed to deliver multiple functions and benefits across the borough's blue and green network in line with the vision and objectives set out in section 3.
- 1 Expansion of the borough's cycle and pedestrian networks
- 2 Enfield sports villages
- 3 Expansion of the open space and route network within the urban area to improve links to the Lee Valley Regional Park
- 4 Green Loop



- 5 Enfield Chase
- 6 Grey-to-green gateways
- 7 Wetland and river restoration programme
- 8 Historic landscape restoration programme
- **4.2.14** Delivery of these projects will depend upon on-going stakeholder engagement and the availability of funding (see section 5). Further detail on these projects (including delivery partners, indicative costs, risks and timescales) is presented in appendix 1.

# 4.3 Providing blue and green infrastructure within new development

Decisions on blue and green infrastructure provision within new development will need to have regard to the policies set out in the Local Plan, London Plan and other relevant guidance (e.g. supplementary planning documents). Development proposals will be expected to take account of the standards in terms of quality, accessibility and quantity set out in the Blue and Green Infrastructure Audit when assessing provision. Good practice guides/tools relating to the provision of bluegreen infrastructure are available from the Mayor of London (e.g. Urban Greening for Biodiversity Net Gain: A Design Guide), government agencies (e.g. Natural England's Climate Change Adaptation Manual and Natural Green Space Standards) and departments (e.g. DEFRA's biodiversity metric).

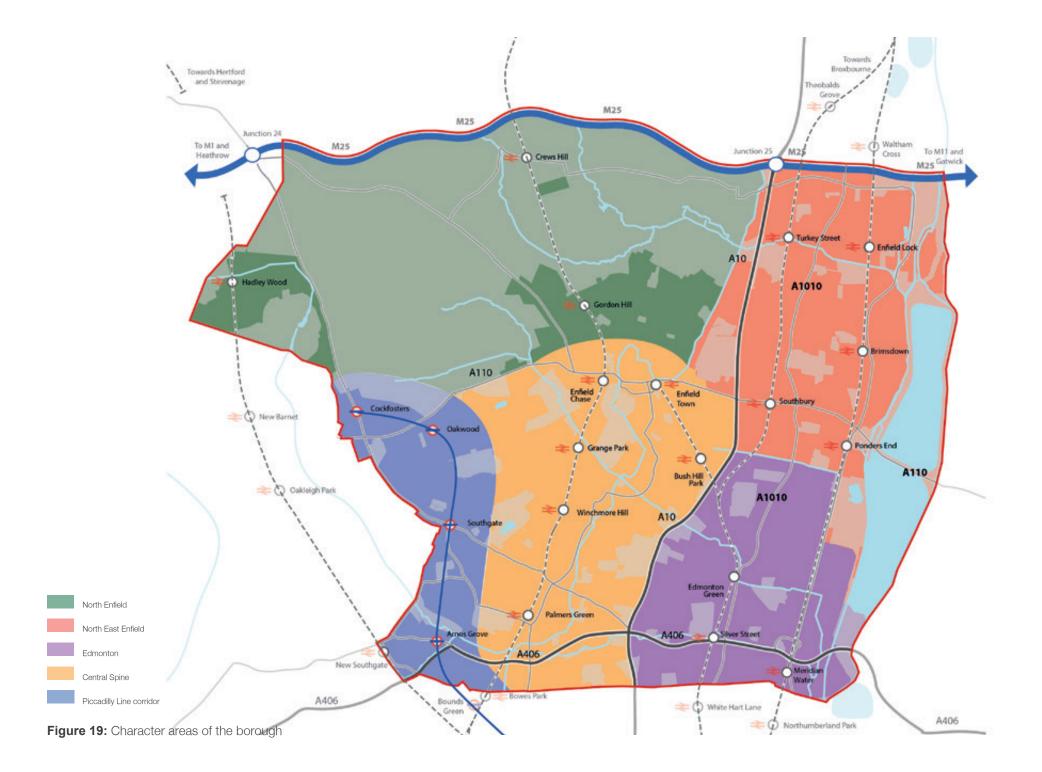
4.3.2 New development will also be expected to make a significant contribution to the borough's zero carbon targets set out in the Climate Action Plan. For instance, the Meridian Water scheme has an ambition to become a zero carbon by 2030 and carbon positive (net zero emissions) by 2040. Up to 30% of the site will be classed as green infrastructure, featuring new parks, open spaces, trees and green links<sup>15</sup>.

**4.3.3** We will work with the development

industry and other partners to deliver habitat creation, restoration or enhancement as a means of delivering biodiversity net gain in line with the objectives of the Biodiversity Action Plan, prioritising rare or threatened habitats and species\*, sites of importance for nature conservation (see figure 10) and areas that have low levels of access to nature (as shown on figure 11). This includes the use of swift bricks, bird boxes, living walls/roofs and other design features to increase biodiversity within new buildings and spaces.



Figure 18: A105 Cycle Lane



**4.3.4** Our approach to tree and woodland planting will be further developed through the forthcoming action plan to facilitate active management practices and prioritise areas of poor canopy cover such as town centres (e.g. Enfield Town and Southgate) and industrial locations (e.g. Brimsdown, Southbury and Edmonton).

### 4.4 Emerging priorities & areas of change

- 4.4.1 As explained in section 2, Enfield has a rich array of blue and green assets which collectively form the basis of establishing an integrated and well-connected network across the borough and its hinterland. The geography of the borough can be broadly split into five discrete areas (as illustrated on figure 19 overleaf).
- **4.4.2** A series of inset maps showing the broad location and scale of existing blue and green assets and the proposed interventions across each area of change is also provided below.
- **4.4.3** These maps are based on information gathered from the following evidence base documents:
- Open space and sites of nature conservation importance audit data
- Active travel maps (healthy streets)
- Mapinfo files (e.g. watercourses, private gardens, public rights of way, tree and woodland coverage etc)

 Green infrastructure focus map (London Datastore, Mayor of London).

#### Area 1: North Enfield

Crews Hill, Hadley Wood, Gordon Hill, Botany Bay, Enfield Chase, Forty Hill, Bulls Cross and Clay Hill

**4.4.4** Stretching from the M25 to Enfield Town and from Trent Country Park to the A10, this area encompasses large tracks of farmland and dense woodland and a dispersed pattern of small

settlements. It forms the interface between built-up suburban areas to the south and east (e.g. Clay Hill, Enfield Chase and Bulls Cross) and agricultural land to the west and north.

4.4.5 The tributaries of the River Lee (Salmons Brook and Turkey Brook) flow eastwards across swathes of arable farmland and parkland from the Green Belt into existing residential suburbs (e.g. Clay Hill, Forty Hill and Bull's Cross) on the edge of the main built-up-area, parts of which are accessible and provide green corridor links.



Figure 20: Trent Park, Cockfosters

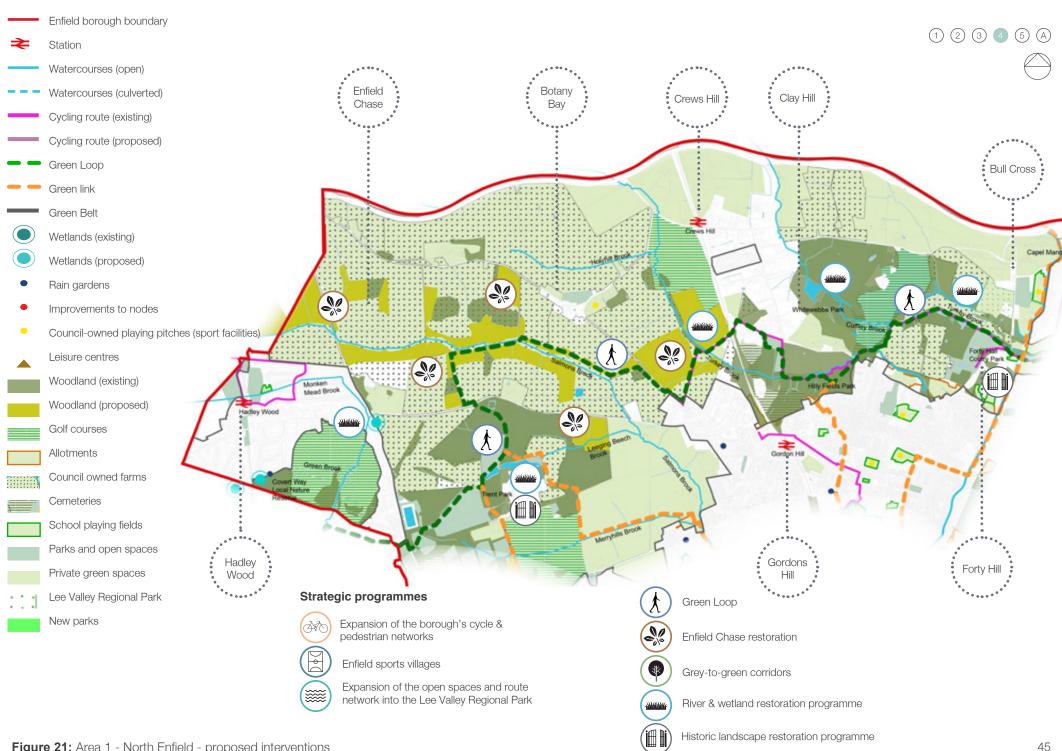


Figure 21: Area 1 - North Enfield - proposed interventions

- 4.4.6 Overall, North Enfield is well served in terms of accessible open space provision, including large public parks (e.g. Hilly Fields Park, Trent Park, Forty Hall and Whitewebbs Park) and cemeteries. Several long-distance walking routes (e.g. London Loop) traverse through this area, from Trent Park to the Lee Valley Regional Park. Many of these spaces, like Forty Hall, Capel Manor and Myddelton House, are associated with former country house estates.
- 4.4.7 Much of this area lies within the open Green Belt, extending from east-to-west across areas of high landscape and historical value (e.g. Forty Hall and Capel Manor). There are significant opportunities to enhance the recreational potential and accessibility of the open countryside near to the main built-up-area.
- 4.4.8 Capel Manor is home to a leading environmental college with an international reputation in forestry, arboriculture, saddlery, animal husbandry and horticulture. The college also runs an award-winning organic farm at Forty Hall, which includes a market garden, community orchard and a 10-acre vineyard (London's only commercial-scale vineyard).
- 4.4.9 The landscape is well-maintained and has a strong network of wooded blocks and large mature hedgerow trees which punctuate the open arable landscape and provide the character of a well-wooded landscape. There are many points (particularly from the Ridgeway, Whitewebbs Lane and Stagg Hill) where long distance views across the rolling landscape can be enjoyed. This area also includes remnants of the former royal forest

and hunting ground (known as Enfield Chase).

- **4.4.10** More needs to be done to improve active travel options like new footpath and cycle links between the country parks/visitor attractions (e.g. Trent Park, Whitewebbs Park and Forty Hall) and other parts of the borough, such as deprived urban communities.
- 4.4.11 The area also enjoys good access to important natural and semi-natural spaces. Covert Way (a local nature reserve) and adjoining open spaces (Monken Hadley Common and Hadley Wood) cut a generous green swathe through the western fringe of the borough extending to Trent Country Park and beyond. The Lee Valley Regional Park, on the eastern fringe of this area, cuts through large swathes of historic parkland and ancient and semi-ancient woodland.
- **4.4.12** The Green Belt contains vast tracks of council-owned land but much of it is inaccessible to the public due to the lack of direct footpaths and physical barriers, such as river and rail corridors. There are pockets of open space deficiency in Hadley Wood, Enfield Chase and Gordon Hill.
- **4.4.13** As part of this network, plans are afoot to harness water-based recreation and leisure opportunities within this area (e.g. Banbury/King George V reservoirs and Pickett's Lock) and improve links to adjoining communities.

#### Area 2: North East Enfield

Ponders End, Enfield Wash, Southbury, Brimsdown, Enfield Highway, Turkey Street and Enfield Lock

- 4.4.14 This area stretches from the M25 motorway southwards to Ponders End and Lee Valley Regional Park. It comprises the diverse residential communities (e.g. Ponders End, Enfield Lock and Enfield Wash) along the main spine of Hertford Road; the attractive conservation areas at Turkey Brook and Enfield Lock; thriving industrial areas of Brimsdown and Innova Park; the network of inland waterways and the recreational and water spaces within the Lee Valley Regional Park (e.g. Picketts Lock).
- 4.4.15 Overall, north east Enfield has good access to a wide range of different types of open space, including large urban parks (including Albany Park, Hoe Green Park, Prince of Wales and the Lee Valley Regional Park) and pockets of smaller green space.
- 4.4.16 Covering the entire length of the area, the Lee Valley Regional Park acts as a green lung connecting Enfield to Hertfordshire, Essex and Central London. The park enjoys good access to award-winning country estates (including Trent Park, Forty Hall, Whitewebbs Park and Gunpowder Park) and important habitats (e.g. Rammey Marsh, King George's Reservoir and Swan and Pike Pool) and historic assets (e.g. Royal Small Arms Factory) via the Lee Navigation and other green grid links.
- **4.4.17** However, the overall quality and quantity of open space per person within this area is below the

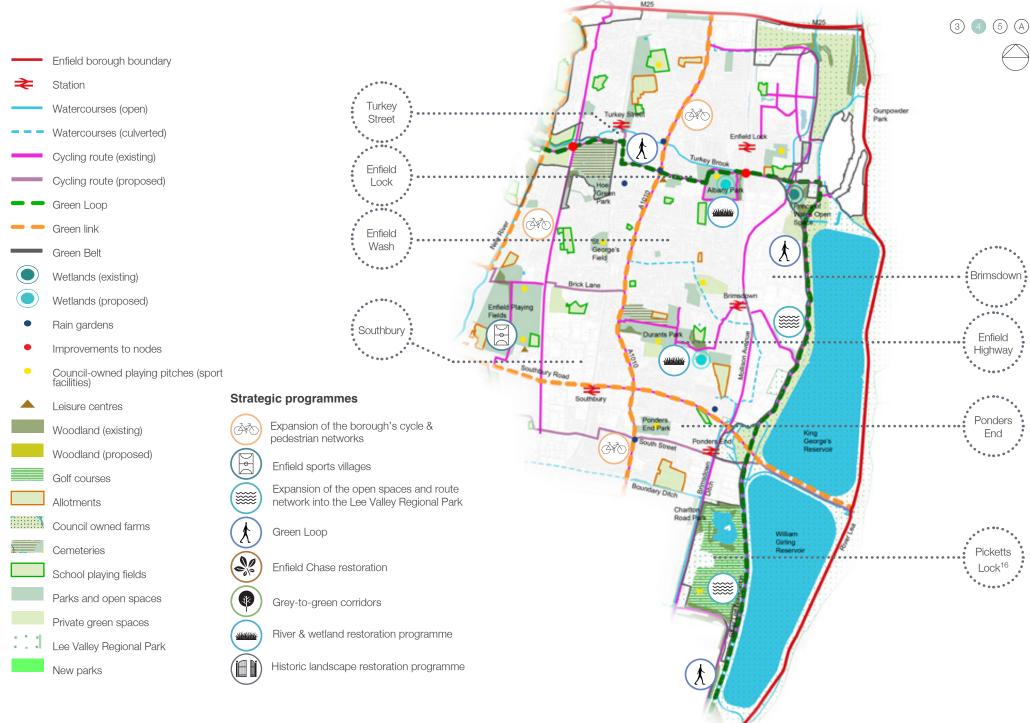


Figure 22: Area 2 - North East Enfield - proposed interventions

recommended standard. The area has a shortage of public parks, playing pitches and children's play space and there are notable deficiencies within Brimsdown industrial estate, Southbury and Ponders End.

- 4.4.18 Targeted improvements are needed to diversify and improve the quality of these spaces through the provision of new children's play provision, new planted gardens, natural or seminatural areas (e.g. A1010 Hertford Road) and the greening of industrial estates. Some of the existing public parks contain areas of flat and bland open areas of grassland and lack direct connections to other green spaces.
- **4.4.19** This area contains more waterspace than any other part of London due to its location on the River Lee and proximity to large reservoirs. However, much of this water is hidden from view and inaccessible to the general public (e.g. privately-owned land).
- **4.4.20** Overall, north east Enfield has good north-to-south pedestrian and cycle links, particularly adjacent to the River Lee Navigation, Mollinson Avenue and Hertford Road. However, the presence of major arterial roads (A1010 and A10) and rail routes (e.g. East Anglia mainline) through this area creates a major barrier to east-west movement. The area also suffers from poor air quality along congested routes and poor access to railway stations.
- **4.4.21** Some of the existing local centres (e.g. Ponders End, Enfield Highway and Enfield Wash) suffer from a poor-quality public realm and

pedestrian arrival, especially at key gateways and junctions. These areas will require environmental improvements and public realm works in the form of junction upgrades, tree-planting, landscaping and pedestrianised areas.

#### Area 3: Edmonton

### Angel Edmonton, Meridian Water, Lower Edmonton and Jubilee

- 4.4.22 This area is located in the south eastern part of the borough, extending from Pickett's Lock in the north to north east Tottenham / Northumberland Park in the south. The A10 (Great Cambridge Road) runs the entire length of the western boundary of this area. Most of this area lies within the Upper Lea Valley and contains large expanses of industrial and residential land.
- 4.4.23 This area also borders the London boroughs of Haringey and Waltham Forest. The River Lee Navigation and Lee Valley Regional Park run through the eastern part of this area, forming part of a major green corridor extending across several reservoirs and country parks from Enfield to the River Thames. A raised section of the North Circular Road (A406) is a major feature of the townscape, running east-to-west through this area.
- **4.4.24** There are sites of international and national ecological importance within the vicinity of this area, including the Lee Valley Reservoir Chain (sites of special scientific interest) and the Lee Valley Special Protection Area/Ramsar site (Walthamstow Reservoirs).

- 4.4.25 Residents in this area show the highest levels of dissatisfaction with open space in the borough. This is primarily due to the lack of open space provision (e.g. recreational and food-growing spaces) and the relatively poor accessibility to them. The Lee Valley Regional Park and existing open spaces to the west have relatively few connections or linkages with Meridian Water, Edmonton and Angel Edmonton, largely as a result of severance arising from the A406 (North Circular Road), A10 (Great Cambridge Road) and the River Lee, which helps explain why, fewer people walk or cycle to work in this area than the rest of the borough.
- **4.4.26** In addition, opportunities will be taken within this area to:
- create small linear parks and a publicly accessible urban wetland as part of the future restoration of the reservoirs to address open space deficiencies in this area and improve access into the Lee Valley Regional Park;
- create key hubs along corridors (e.g. Pickletts Lock) and gateways into the Lee Valley Regional Park;
- improve existing open spaces and increase urban greening (e.g. pocket parks), particularly on the west side of Upper Edmonton and between Brimsdown and Ponders End:
- create a continuous urban park extending across several development sites (including new through routes to the wider green chain network); and;

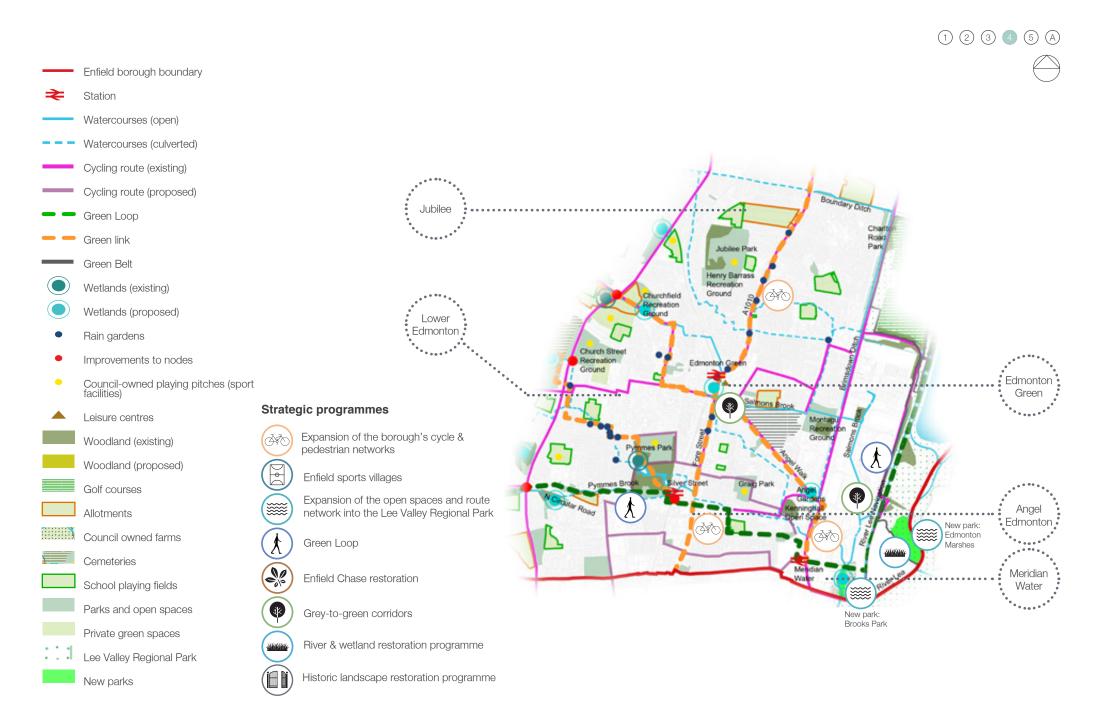


Figure 23: Area 3 - Edmonton - proposed interventions

- provide new allotment spaces and accessible open spaces through new developments (particularly within areas of deficiency).
- 4.4.27 Open spaces in this area are generally poor in terms of quality/functionality and many feel unsafe. In addition, there is a strong correlation between areas of multiple deprivation and the supply and quality of open space in this area. The dense nature of existing residential areas (e.g. Angel Edmonton and Edmonton Green) and the limited availability of vacant land means that there are relatively few opportunities to accommodate new open spaces and public rights of way within this area. Some parts of this area suffer from a poor-quality environment (especially from former industrial activities) and high levels of flood risk.
- **4.4.28** This area also contains several watercourses including the Lee Navigation flood relief channel, Salmons Brook and Pymmes Brook. However, the industrial heritage of the watercourses in this area is fragmented, partially hidden and substantially degraded. Pymmes Brook and Salmons Brook both suffer from water and sewage pollution, although the quality of this water is gradually improving as upgrade works have recently been implemented at the Deephams sewage treatment plant in Edmonton. Despite the presence of large waterbodies, public access to these spaces is restricted and the relatively high embankments and lack of direct routes (e.g. footpaths) render them largely inaccessible to the public.

#### Area 4: Central Spine

### **Enfield Town, Palmers Green, Bush Hill Park, Winchmore Hill and Grange Park**

- **4.4.29** Spanning the central core of the main built-up-area, this area encompasses a mixture of suburban and urban-based residential communities linked to historic centres (e.g. Enfield Town, Palmers Green, Southgate Green and Winchmore Hill) and river corridors.
- **4.4.30** There are several and extensive open

spaces (e.g. Town Park, Chase Green and Millennium Jubilee Gardens) that encircle and frame the core town centre (Enfield Town) and surrounding residential communities. The New River (aqueduct) runs north-south through the heart of this area, linking together existing disparate open spaces. Enfield Town has good public transport links (e.g. overground, rail and bus stations) but access to them is restricted due to vehicular and pedestrian conflicts at key intersections.

**4.4.31** These areas are also subject to high



Figure 24: Firs Farm wetlands and playing fields, Winchmore Hill

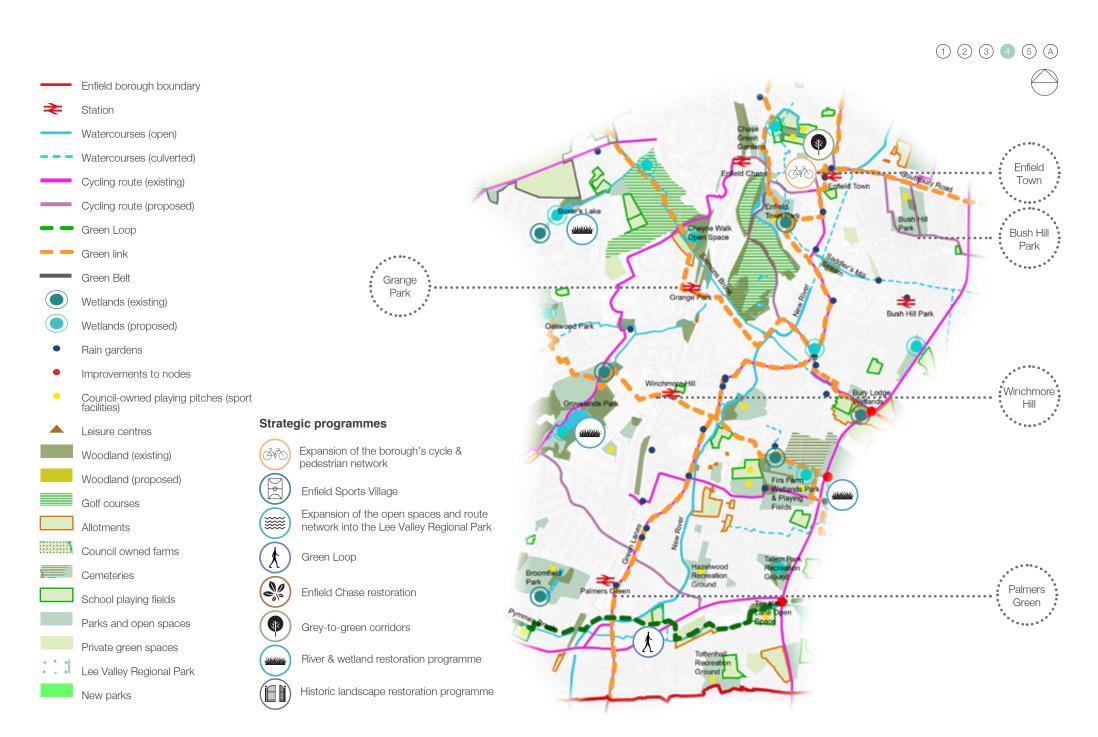


Figure 25: Area 4 - Central Spine - proposed interventions

surface water flood risk and future development and hardscaped spaces will exacerbate this. As such, it will be necessary to implement green infrastructure (sustainable urban drainage systems) widely across the catchment to manage surface water flood risk and enable development.

4.4.32 There are significant opportunities to open-up more of the river corridors and urban green spaces (see figure 22) through Palmers Green, Winchmore Hill, Grange Park and Enfield Town at the New River, Saddlers Mill Stream, Salmons Brook and Pymmes Brook. Visibility of the green spaces (e.g. Town Park, Chase Green and the New River) and their connections to existing town centres could also be improved. Tree canopy coverage could be enhanced to link doorstep amenity spaces to local parks and natural greenspace and create new habitats. Open spaces define the character of the historic centres, such as market squares, church gardens (e.g. Enfield Town) and village greens (e.g. Winchmore Hill).

4.4.33 Other important areas of publicly accessible open space in this area include Broomfield Park, Bush Hill Park and Firs Farm featuring award-winning wetlands and gardens (e.g. Broomfield Conservatory). Residents have reasonably good access to parks and semi-natural spaces (e.g. Cheyne Walk and World's End Lane) but there are limited opportunities to diversify existing open spaces within Palmers Green, Bush Hill Park, Southgate Green and Winchmore Hill to alleviate the identified deficiencies, such as children's playspace and food-growing land. There are acute pockets of deficiency in Highlands and Grange Park.



Figure 26: The New River

#### Area 5: Piccadilly line corridor

Oakwood, Cockfosters, New Southgate, Southgate Green, Arnos Grove and Southgate

4.4.34 Located on the western fringe of the borough, this corridor follows the trajectory of the Piccadilly underground line (Cockfosters branch) through a series of residential suburbs and town centres, from Bounds Green in the south to the edge of the metropolitan Green Belt in the north (as shown on figure 28). The London borough of Barnet straddles the entire western boundary of this area.

**4.4.35** The Cockfosters branch of the Piccadilly line features four tube stations: Oakwood, Cockfosters, Arnos Grove and Southgate. These stations form the centrepieces and architectural landmarks of the residential communities (of the same name) which grew up around them.

associated with the development of the Piccadilly line in the early twentieth century, with its neo-Georgian and inter-war architecture and generous street pattern, including wide boulevards (e.g. Cockfosters), linear road verges (e.g. Oakwood) and the civic spaces around the listed stations (e.g. Arnos Grove and Southgate). However, the streetscape of some of these centres includes relatively little greenery and civic space.

4.4.37 Open spaces are generally well distributed across this area ranging from large formal parks, such as Grovelands Park, Oakwood Park and Arnos Park) and sports grounds (e.g. Tottenhall Recreation Ground and Boundary Playing Fields)

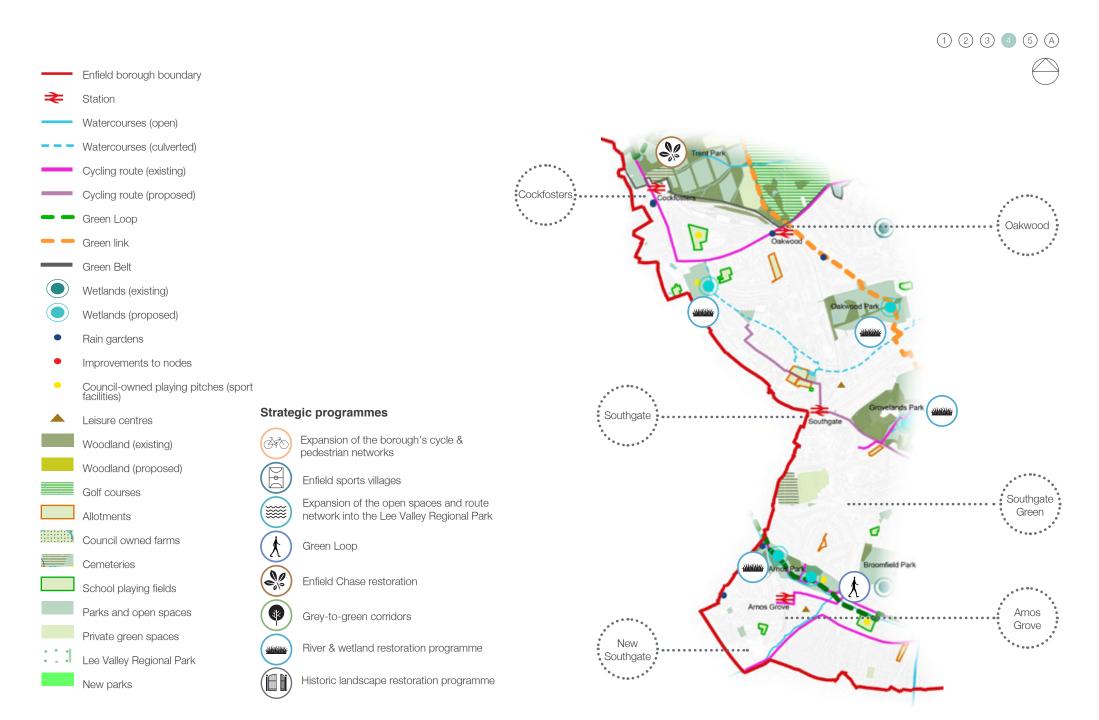


Figure 27: Area 5 - Piccadilly line corridor - proposed interventions

through to small pocket parks and amenity spaces. These parks will require ongoing improvements (including the upgrading of existing facilities, safety and security measures, wetland creation and new connections) and regular maintenance through a holistic approach to partnership working.

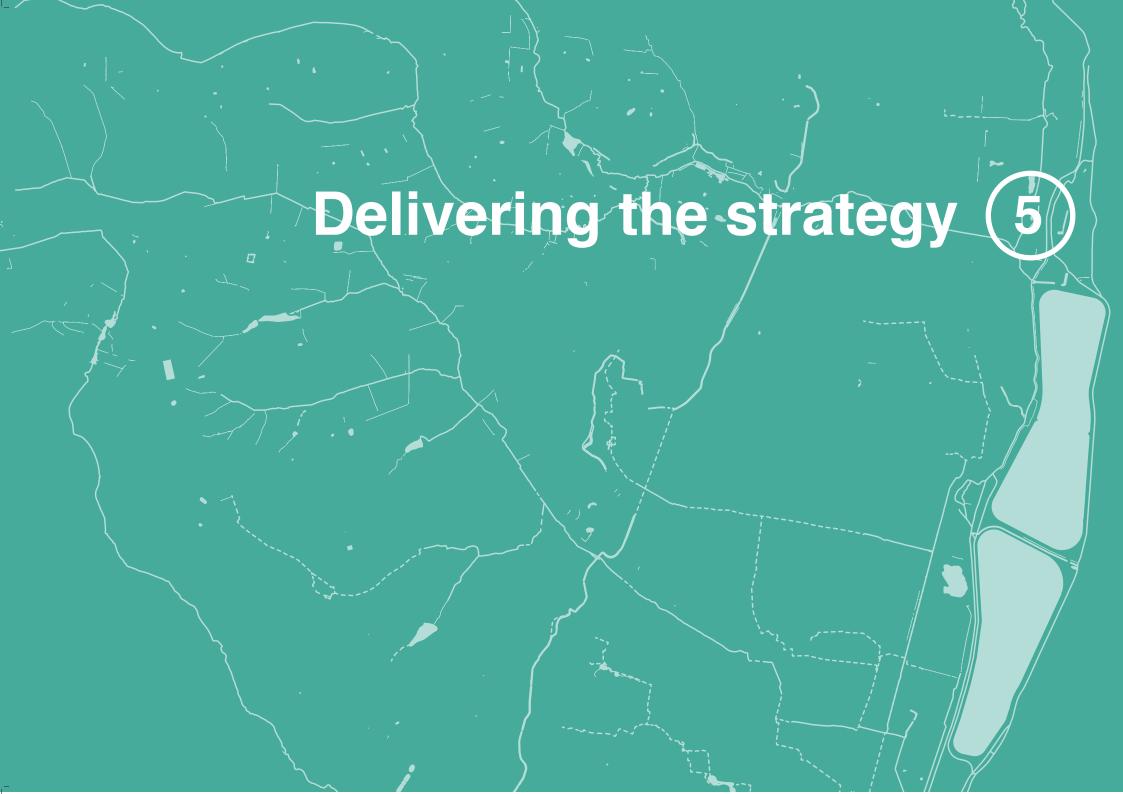
- **4.4.38** The Pymmes Brook (a tributary of the River Lea) runs through the entire length of Arnos Park, New Southgate Cemetery and Brunswick Park, where it connects with the Pymmes Brook Trail London Loop.
- **4.4.39** Grovelands Park often described as the jewel in the crown of Enfield's public parks is an eighteenth grade 11\* listed park and garden and lake covering some 40 hectares. It is also designated as a site of local nature importance.
- **4.4.40** Some communities (e.g. Southgate Green and Southgate) have a deficiency of children's play spaces, public parks and allotment land. Few opportunities, however, exist to create new natural green space habitats and open spaces in the wider area.



Figure 28: Sustainable urban drainage at Grovelands Park







## 5 Delivering the strategy

### 5.1 Delivering an integrated and multi-functional network

**5.1.1** This section sets out how we will work with the local community and other stakeholders to deliver an integrated, accessible, safe, coherent and multi-functional blue and green network across the entire borough.

**5.1.2** We will use the guidance set out in this strategy to:

- assess the quality of blue and green infrastructure within new development, including the design and masterplanning of key sites;
- outline the measures (e.g. design workshops and local events) that will be taken to involve the local community and other stakeholders in the process of identifying and implementing projects;
- guide the operational requirements of public services and functions, including on-going management and maintenance of assets (e.g. public parks); and
- explore funding and project opportunities (e.g., business cases) to maximise the the blue and green network, based on up-to-date mapping evidence.

#### 5.2 Working with our partners

**5.2.1** The success of the strategy will depend on

a range of partners working together to deliver blue and green infrastructure across Enfield (see figure 30) and the wider hinterland (see figure 5).

**5.2.2** We will establish a new cross-cutting partnership to lead on the delivery of blue and green infrastructure in Enfield, with representatives from public, private and voluntary sectors. This body will:

- champion the benefits of blue and green infrastructure to a wider audience, including government departments, arms-length bodies and national charities;
- support grassroots level involvement especially via organisations and partners already working with residents and community groups (e.g.

- neighbourhood forums, friends of parks groups, education providers and area partnership boards) in the creation, conservation, maintenance and management of blue and green infrastructure;
- oversee the implementation of priority projects and initiatives (as identified through the Infrastructure Delivery Plan and appendix 2);
- establish appropriate funding and delivery mechanisms (see section 5 below) and regular monitoring (see figure 31); and
- liaise with partnerships across London and the south east (e.g. neighbouring authorities and county councils) to coordinate cross-boundary delivery of projects and programmes.



Figure 29: Bury Lodge Wetlands







ondon borough

of Enfield

Private sector

Public bodies

Voluntary secto

We will use all the powers we have (including planning) to increase the quality of blue and green infrastructure in the borough and integrate it into the design and layout of new development as far as possible. As the highway authority, we have wide-ranging responsibilities to provide a safe, efficient and active transport network, encouraging environmentally friendly transport solutions, such as walking and cycling (e.g. designation of new footpaths) and providing upto-date information (e.g. definitive map of the public rights of way network).

We will also encourage the designation of assets of community and heritage value (e.g. locally listed buildings and spaces) that make a positive contribution to the character and well-being of the borough. Where necessary, we will take enforcement action where unauthorised works or activities would unacceptably harm public amenity and/or existing assets, such as protected trees, reservoirs and village greens. We will also produce a range of guidance (e.g. supplementary planning documents and design codes) to help developers, landowners and decision makers deliver multi-functional blue and green infrastructure. As the highway authority, we have wide-ranging powers and responsibilities to provide an efficient and active transport network, encouraging environmentally friendly transport solutions, such as walking and cycling. We will use our own assets to support projects (e.g. new open spaces) where appropriate. We also lead on the delivery of projects within parks and other publicly-owned assets.

The private sector will fund or contribute towards the delivery of the projects and proposals set out in this document. We will continue to work with developers and landowners to ensure blue-green infrastructure is integrated into the design process from the outset (taking account of the views of the community and other stakeholders).

National: Environment Agency, Historic England, Natural England, Canal and Rivers Trust, Sport England, Forestry Commission and others (e.g. neighbouring authorities and sport governing bodies). Regional/sub-regional: The Greater London Authority is the lead authority in the delivery and coordination of blue and green infrastructure across London. Transport for London is responsible for coordinating sustainable transport across London. It is taking a lead role in the development of the active streets network. We are also working with the Lea Valley Regional Park Authority and other partners (e.g. Thames21) to improve the Lee Valley Regional Park as a leisure, amenity and recreational resource and links to its visitor attractions, open spaces and wildlife habitats. These bodies also provide potential match funding towards the delivery of projects and programmes.

We work with a range of environmental organisations such as the National Trust, RSPB, Thames21, London Wildlife Trust and Civic Trust to promote and manage our blue and green network. There are also many active groups and associations in the local community that help manage and maintain our parks and open spaces, such as friends of parks groups, conservation committees and action groups. For instance, we work in partnership with the 28 friends of park groups and other volunteer groups to deliver a range of improvements (e.g. landscaping and wetland creation) and activities (e.g. outdoor events and education programmes) in our parks and open spaces, whilst making sure they are safe, welcoming, accessible, especially to wheelchair users, and capable of being maintained and managed to an appropriate standard (e.g. avoiding/minimising damage after events, such as litter and fly tipping).



- 5.2.3 In addition, we have set up a dedicated project team of specialists (e.g. engineers, planners and designers) to help coordinate the delivery of projects alongside this partnership and facilitate community engagement through the decision-making process. The project team will work with funding agencies to secure grant funding towards projects, where needed.
- 5.2.4 We will also use this strategy to raise local community awareness of the importance of nature and increase their sense of ownership over the use and management of blue and green assets, primarily through education and training programmes, social media and marketing campaigns, cultural events and guided tours.
- 5.2.5 We are working with community groups, businesses and other stakeholders to support the delivery of a diverse events programme (e.g. festivals, carnivals and charity functions) that will maximise the positive use of Enfield's parks and open spaces as destinations of enjoyment and relaxation<sup>17</sup>. This programme will, in turn, support local business/investment opportunities (e.g. sources of income through fundraising), stimulate inward investment, improve the availability and accessibility of entertainment and culture, enhance community relations and promote the image of the borough.
- **5.2.6** Strategic programmes and projects are proposed in appendix 2 (this is not an exhaustive list). Progress towards the delivery of these and other emerging projects will be reported on an annual basis through the Enfield Infrastructure Delivery Plan.

### 5.3 Funding mechanisms & sources

- **5.3.1** Most infrastructure projects in the borough will be part-financed from monies secured through new development. Developers and landowners will be expected to contribute towards improvements to the borough's blue and green network as part of new development. This includes the creation of new open spaces and routes, either on or off site. Where appropriate, contributions will be pooled alongside other sources (e.g. match funding) to help deliver projects<sup>18</sup>.
- **5.3.2** In many cases, project delivery will be dependent on other sources of funding and finance, such as grants and loans from public and voluntary bodies, lottery funding and capital receipts.
- **5.3.3** Each year, we will produce a statement setting out how these monies will be spent over the next financial year and beyond. The latest infrastructure funding statement is available to view at www.enfield.gov.uk.

#### 5.4 Interactive mapping

- **5.4.1** The Enfield Blue & Green Infrastructure Map is an interactive digital tool that will allow individuals and organisations to view and access information on:
- the location of designated assets, corridors and nodes (see figure 2);

- current and planned projects (as identified in the Infrastructure Delivery Plan and appendix 1);
- areas of deficiency (e.g. public parks);
- potential sources of funding (e.g. developer contributions); and
- other (e.g. indices of deprivation).
- **5.4.2** As a live document, this map will be updated on a regular basis to reflect the latest baseline information (e.g. project updates) as it evolves over time.
- **5.4.3** Specific land use designations (e.g. open spaces, flood risk zones and wildlife corridors) and development site allocations are shown on the Policies Map which accompanies the adopted Local Plan.

#### 5.5 Measuring the success of the strategy

- **5.5.1** Progress towards the vision and aims of the strategy will be measured against the following high-level targets and indicators (as set out in figure 31).
- 5.5.2 The aspirations set out in this strategy will be implemented through planning policies set out in the adopted Local Plan and will inform the preparation of planning applications and masterplans to secure delivery through development and maximise benefits of the borough's blue-green infrastructure network.









Aim	Key performance indicator	Baseline	Targets (as a minimum)
Aim 1: Achieving a 25% increase in blue-green infrastructure in Enfield	Sport pitch provision	This is a new indicator, so baseline is set at 0	• 3 sport hub sites at Enfield Playing Fields, Hotspur Way and Firs Farm
			• 4 new 3G football pitches
			• 2 new rugby pitches
	Proportion of green cover on large-scale development sites	This is a new indicator, so baseline is set at 0	• 30% of green cover (e.g. open space, trees and green roofs) on strategic development sites (subject to viability and land availability)
	Proportion of publicly accessible parks and open spaces	1013 hectares	• 22 hectares of new publicly accessible open space (Meridian Water)
	Number of hectares of new publicly accessible woodland established	This is a new indicator, so baseline is set at 0	300 hectares of new publicly accessible and native species woodland
	Number of street trees planted	This is a new indicator, so baseline is set at 0	• 500 per year
	Proportion of biodiversity net gain	This is a new indicator, so baseline is set at 0	• 10% of biodiversity net gain on major development sites

Aim	Key performance indicator	Baseline	Targets (as a minimum)
Aim 2: Ensuring our residents can access blue and green spaces within 15 minutes walking distance of their homes and businesses	15-minute accessibility catchments to borough-sized sites and above (1.2 kilometres)*		Focus accessibility improvements in the following areas:
			Enfield Chase / Slades Hill
	*Further details on accessibility catchmentareas are set out in the Enfield Blue and Green Infrastructure Audit.		• Enfield Town station
			Southbury
			Lower Edmonton
			Edmonton Green
			Upper Edmonton
			Bush Hill Park
			Brimsdown / Enfield Highway
			Palmers Green
Aim3: Making our places more distinctive, healthier, attractive and culturally inclusive	Increase the number of green flag sites	Various (each year)	More than 1 publicly accessible park with green flag status per year
Aim 4: Achieving a fairer distribution of blue-green infrastructure to overcome deficiencies	Areas deficient in all types of open space	This is a new indicator, so baseline is set at 0	Focus open space improvements in the following areas:
			Southbury rail station
			Bush Hill Park
			Upper Edmonton
	Increase playspace provision	This is a new indicator, so baseline is set at 0	Focus playspace improvements at Enfield Lock, Enfield Highway and Turkey Street





Aim	Key performance indicator	Baseline	Targets (as a minimum)
Aim 5: Creating wilder, more natural spaces to enable biodiversity to thrive, support the restoration of ecosystems and increase interest among people	Number of hectares of new woodland established	This is a new indicator, so baseline is set at 0	300 hectares of new native species and publicly accessible woodland
	Number of new wetland sites	This is a new indicator, so baseline is set at 0	• 12 new wetland sites
	Enhancements to existing nature conservation sites	41 hectares	<ul> <li>Increase from baseline: 6 sites (upgrades or extensions) and 3 opportunity sites</li> </ul>
Aim 6: Creating a safe and healthy water environment, with increased resistance to flooding and drought	Percentage of development in medium to high risk flood areas	This is a new indicator, so baseline is set at 0	Direct development from areas of high to medium flood risk, where possible
	Number of new food-growing spaces	75.40 hectares of allotment land	Increase from baseline
	Water quality of the borough's rivers	This is a new indicator, so baseline is set at 0	
			• Improve water quality from poor to good across Pymmes Brook and Salmons Brook
Aim 7: Providing innovative and multi-functional spaces and activities to meet the needs of all users	Increase the proportion of sites under active conservation management (SINC network)	30%	All publicly owned sites subject to positive management

Figure 31: Performance targets and indicators





### **Appendix 1: Strategic programmes**

1 Continued expansion of the borough's award-winning cycle & pedestrian networks

#### Vision & objectives

Enfield's healthy streets programme forms part of the Mayor of London's healthy streets agenda to enable more Londoners to walk, cycle and use public transport. The programme aims to create places, streets and neighbourhoods that make walking and cycling feel safer and more convenient, reduce the number of short car journeys and encourage active travel. Our ambition is to increase the mode share of walking and cycling across all trips originating in the borough with a view to substantially increasing the number of active travel trips.



Figure 32: A105 Green Lanes

The scope of the healthy streets programme includes:

- delivering new high-quality cycleways (including more segregated routes) to create a joined up and coherent cycling network across the borough linking key destinations, such as (e.g. town centres, hospitals and transport interchanges);
- improving the quality and durability of surface treatments (e.g. worn or overgrown paths) and street furniture (e.g. signage and seating) and extending permissive informal links into the wider public rights of way network, where possible;
- making safer and more attractive residential streets through the creation of "quieter neighbourhoods" to reduce traffic speeds and the volume of through-traffic;
- providing enhanced cycle parking facilities in neighbourhoods and at key destinations (e.g. schools, public transport interchanges and major employment centres); and
- improving the quality of the public realm (e.g. junction upgrades and safer crossings) to help improve the vitality and viability of our town centres and make sustainable transport the natural choice, particularly for short journeys.

#### **Projects & initiatives**

New cycle routes

A1010 North

- A1010 South North Middlesex Hospital and onwards into Haringey
- William Girling via River Lee Diversion to King George V (Chingford Reservoirs)
- Liveable Neighbourhoods
- Dedicated cycle routes into Enfield Town and Edmonton to encourage multi-modal commuting

New or upgraded walking routes:

- Meridian Water and the new Edmonton Marshes through to Pickett's Lock in the north and south into Haringey via Tottenham Marshes
- Lee Navigation towpath
- London Loop (e.g. new footbridges and community gardens)
- Edmonton Green to Meridian Water
- Pymmes Brook Trail
- Salmons Brook (from Hadley Wood to Meridian Water, with new links to the Green Loop)

**Timescale**: Short to medium term (5 years)

**Partners**: Highways England, local authorities (e.g. Broxbourne, Haringey and Waltham Forest), Transport for London, Greater London Authority and local community groups.

**Sources of funding**: Highway England (e.g. feasibility stage) and developer contributions.

#### Risks & challenges:

The trail routes will need to take account of the existing road network (to avoid traffic) and future development opportunities, making best use of the available space.







### 2 Enfield sport villages



#### Vision & objectives

This programme represents a very unique and exciting opportunity to deliver world class sports facilities at Enfield Playing Fields (Carterhatch), Hotspur Way and Firs Farm (Winchmore Hill). These hubs aim to be recognised as centre of excellence, enhancing Enfield's reputation as a premier top sports destination.

#### **Projects & initiatives**

- Intensification of outdoor sports and leisure activities (this could include skateboarding and climbing)
- Phased protection and enhancement of existing facilities, including all weather pitches/ courts, upgraded changing rooms, drainage improvements, lighting and car parking resurfacing
- Introduction of ancillary complimentary uses (e.g. creche and café)
- Integration of neighbouring assets (e.g. Southbury Leisure Centre) and new connections to neighbouring residential

areas, greenways (e.g. New River) and public transport routes (e.g. Southbury Road)

**Timescale**: Medium term (5-10 years)

Partners: Enfield Playing Pitch Steering Group, Sport England, Fields in Trust, Football Association, UK Athletics, Transport for London, Greater London Authority and local community groups.

**Sources of funding**: Developer contributions from nearby developments and other sources (e.g. Football Foundation)

Risks & challenges: Coordination of new development opportunities in the wider area.



Figure 33: Enfield Playing Fields

3 Expansion of the open space and route network within the urban area to improve links to the Lee Valley Regional Park

#### Vision & objectives

This project seeks to improve connections to the Lee Valley Regional Park from the west of the River Lea into the heart of the planned communities at Meridian Water, Brimsdown and Ponders End.

As part of the expansion of the network, a series of new publicly accessible open spaces and river channels (Salmons Brook and Pymmes Brook) will be created to form a continuous green corridor along the River Lea and Lea Navigation Canal, with new links extending from the Green Belt into Edmonton, Brimsdown and Ponders End. The waterfront (including the non-towpath side of the Lee Navigation and Ponders End) will also be opened up to wider public access.

The open spaces and waterspaces of the park will sit alongside new high-density industry and homes.

Figure 34: Cycling along the River Lee Navigation

#### **Projects & initiatives**

- Urban waterfront and sport/leisure opportunities at Picketts Lock, Banbury reservoir (e.g. sailing) and Lee Valley Leisure Complex/Lee Valley Athletics Centre (e.g. golf, indoor swimming, bowling, athletics, surfing and camping)
- Creation of new open spaces within high density waterside developments (e.g. playspace)
- In-channel enhancements to watercourses such as the creation of reedbeds in the Lee Navigation to soften hard banks, linking habitat between new or existing wetland areas and facilitating the movement of wetland mammals
- New cycle and pedestrian routes from Edmonton via Meridian Water and the Lee Navigation including improvements to the surfacing of the towpath as a shared space and access points to the Lee Valley Regional Park
- Maximise mooring opportunities and ecological enhancements (e.g. new 'tranquil' greenways)
- Open up access to Pymmes Brook at Wilbury Way

**Timescale**: Medium to long term (10-20 years)

**Partners**: Lee Valley Regional Park Authority, Natural England, Environment Agency, Thames 21, Haringey, Waltham Forest, Epping Forest Conservators, Thames Water and Canal & River Trust. **Sources of funding**: Housing Infrastructure Fund, developer contributions and GLA/TfL funding

**Risks & challenges**: Delays to development schemes







### **Green Loop**

#### Vision & objectives

The concept behind the 'green-loop' is to create a continuous arc of active travel infrastructure and open space from the Green Belt/Lee Valley

Regional Park into the main urban area along the river corridors and existing routes that will connect the east and west sides of the borough and beyond, ensuring that areas of natural beauty and heritage are within walking distance of most homes and businesses.

The green-loop will act as an 'urban promenade'. drawing people from around the borough and

adjoining areas to a different kind of recreational destination: an urban trek through the heart of the borough - safe, green, active, vibrant and fun to all ages and abilities.

#### Projects & initiatives

- Restoration of meadow habitats (e.g. Taten Park);
- Distinctive street design, landscaping, tree plantings and sequences of parks along the greenways will extend the experience of open spaces and nature into the streets of neighbourhoods;
- Appropriate signage will be provided along the existing routes it follows (e.g. New River) and nearby off-route railway stations, with information boards.

**Timescale**: Medium to long term (10-20 years)

**Sources of funding**: GLA/TfL, National Lottery Heritage Fund, capital programme, developer contributions & other types of match funding (e.g. community grants).

Partners: Lee Valley Regional Park Authority, Natural England, Environment Agency, Sustrans, Canal & Rivers Trust, GLA, TfL, Heritage England, landowners, developers & local community representatives.

Risks & challenges: Site-specific constraints (e.g. private ownership), physical barriers (e.g. level crossings and reservoirs) and development blight.

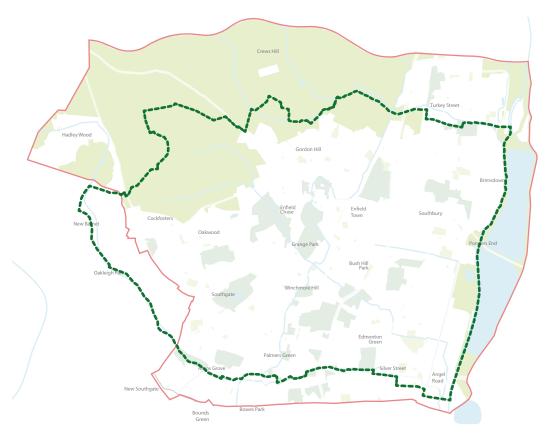


Figure 35: Green Loop

### 5 Enfield Chase restoration – woodland & habitat creation

#### Vision & objectives

This project aims to work with partners to create a new high quality landscape covering an area of the size of Greenwich Park, with over 300 hectares of new publicly accessible woodland and extensive new footpath links on the site of the former royal hunting forest. Stretching across 1000 hectares, Enfield Chase will form one of the largest areas of managed sustainable farming, rewilded open space and woodland in London, creating a continuous green corridor of attractive landscape from Trent Park to Forty Hall in the Green Belt.



Figure 36: Salmons Brook valley - Enfield Chase

#### **Projects & initiatives**

- Abundant street tree planting along key arterial routes (e.g. A10 and A406) and cycleways to absorb traffic noise and pollution and improve the image of the borough as a green place
- Circular dual use routes to Whitewebbs Park, Trent Park and Forty Hall (via Hilly Fields)
- 30 hectares of publicly accessible woodland each year on average, including predominately native species, over the next 10 years this would equate to around 234 tonnes of carbon dioxide savings (per hectare) per annum.
- Rewilding opportunities through woodland creation from Salmons Brook to Whitewebbs Park
- Natural flood management features (e.g. ponds and wetlands) at Salmons Brook
- Improvement of up to 3km of existing footpath along the London Loop to enhance public access from Trent Park to Hilly Fields Park
- Installation of new amenity features (e.g. footpaths, glades and picnic areas)
- Protection and enhancement of key views and vistas across the open Green Belt

Timescale: Medium term (10-20 years)

**Partners**: Forestry Commission, Greater London Authority, Thames21, farm owners and tenants.

**Sources of funding**: GLA, TFL, Forestry Commission, DEFRA and developer contributions.

**Risks & challenges**: The trail route will need to take account of new development in the wider area and the existing road network. There is also a need to improve public transport and pedestrian/cycle links to Enfield Chase from other parts of the borough.





#### 6 Grey-to-green corridors: Breathing new life into Enfield's main thoroughfares

#### Vision & objectives

This programme aims to transform the key routes leading into the borough's town centres (e.g. A110, A10, Fore Street and Silver Street) and major employment areas into urban green boulevards planted with mature trees and meadows, with a strong emphasis on flood protection.

#### **Projects & initiatives**

New sustainable drainage systems along roadside carriageways and verges to offset surface water

Figure 37: Rain gardens at Haselbury Road

run-off, with an array of wildflowers and plants;

- Meridian Water: De-culverting and naturalising water channels along the Pymmes Brook and Salmons Brook to create a more open and natural river environment and overcome flood risk from blockages.
- Edmonton Green: De-culvert Salmons Brook through the town centre to create a more open and natural river environment
- Enfield Town: Public realm improvements to key gateways: Little Park Gardens, St Andrew's Church and the Civic Centre (e.g. market square) and the new River Loop along Southbury Road.

**Timescale**: Medium to long term (10-20 years). In the longer term, these corridors could be extended into other parts of the network.

Partners: Environment Agency, Thames21, GLA, TfL, Canal & Rivers Trust, private landowners & local community groups

Sources of funding: GLA/Liveable Neighbourhoods, TfL and developer contributions,

Risks & challenges: Development blight, utility barriers (e.g. cables) and disruption (e.g. construction noise and traffic)

## 7 Enfield's river & wetland restoration programme



#### **Vision & objectives**

This is an on-going programme of community-led initiatives aimed at restoring Enfield's urban rivers (Salmons Brook, Pymmes Brook and Turkey Brook) and renaturalising the water system across the Lea

catchment area. These rivers suffer from pollution, mainly from misconnected plumbing, sewage overflows and pollutants from roads.

Works will include the creation of new rain gardens, reedbeds and rain planters to improve water quality and reduce flood risk (especially downstream) as well as deliver other multiple benefits, such as habitat restoration and flood plain naturalisation.



Figure 38: Town Park Wetlands

#### **Projects & initiatives**

- Natural flood risk management projects at Forty Hall, Trent Farm, Salmons Brook, Brooks Park, Turkey Brook and Whitewebbs Park
- Retrofitting: Street tree replacement works (typically 500 per year) and upgrading to SUDS trees, especially along existing roadside verges and new housing estates
- Upgrades to drainage infrastructure as part of new development
- Rivers and wetland creation/restoration within public parks (e.g. Albany Park, Arnos Park, Chase Green, Durants Park and Grovelands Park) and wetlands (e.g. Firs Farm and Glenbrook)
- Capital works to protect properties at risk of flooding and improve biodiversity and sustainable drainage within the lower Lee catchment (Lee2100)
- Interpretive trail signs and appropriate markings (e.g. blue walking trails)
- Deculvert/daylight key sections of the Pymmes Brook, Turkey Brook and Salmon Brook (e.g. Edmonton Green, Arnos Park and Brook Park) and remove barriers (e.g. concrete blocks and weirs) to fish passage (subject to funding and land acquisition etc)
- Rewilding opportunities to reintroduce water voles, otters and beavers into Enfield's rivers and support kingfisher nesting and barbel breeding

**Timescale**: Short to medium term (5-10 years)

**Partners**: Thames 21 (with assistance from Thames Water and the Environment Agency) and local community representatives.

**Sources of funding**: DEFRA, Thames Water, Environment Agency and GLA.

**Risks & challenges**: Uncertainty over funding sources in the short term.







#### 8 Historic landscape restoration programme



#### Vision & objectives

The aim of the project is to work with partners to improve the condition of all designated historic landscapes across the borough, especially councilowned sites at Broomfield, Trent and Grovelands.

These landscapes are associated with the former grand estates on the edge of London: Broomfield House, Forty Hall, Grovelands, Myddelton House and Trent Park, forming jewels in the crown of Enfield's unique heritage. Three of the parks (Broomfield Park, Grovelands Park and Trent Park) have been eroded or suffer from split ownerships and changing management protocols<sup>20</sup>. Together, they comprise the highest concentration of historic parks 'at risk' in London.



Figure 39: Trent Park

#### **Projects & initiatives**

- Landscape remediation where historic significance has been harmed or eroded
- Agreed management protocols on split ownership sites to include mowing regimes and succession planting
- Volunteering and heritage engagement opportunities
- Improve condition of structures and monuments
- Heritage interpretation, new signage and directed routes
- Opportunities to protect fragile ecologies
- Protection and enhancement of key views
- Conservation management plans of all our registered parks -approved/adopted

**Timescale**: Medium term (10-20 years)

**Partners**: Historic England, Parks and Gardens Trust and private owners (Grovelands, Forty Hall and Trent Park).

**Sources of funding**: National Heritage Lottery Fund, Heritage of London Trust, Historic England, Natural England and developer contributions to undertake repairs, prepare conservation management plans and secure community engagement to improve landscape and boost wellbeing.

Risks & challenges: Divided site ownerships, limited funding opportunities and resourcing landscape improvements.

### **Appendix 2: Glossary**

Active travel: A mode of transport which involves some form of physical activity such as walking, cycling and jogging to get from one designation to another – including travel to and from places we live, work, play and visit.

Biodiversity net gain: An integrated approach designed to improve the condition of our natural assets and the ecosystems services that flow from them in the context of development.

Blue-green infrastructure: This is a catch-all term which refers to natural and semi natural features including fields, woods, rivers, lakes and gardens that are found between and within our built-up areas. It is an integrated network of multi-functional open spaces and water spaces.

Building Research Establishment Environmental Assessment Method (BREEAM): A widely used method to assess the relative sustainability of non-residential developments.

Community infrastructure levy: A standard charge on most types of development in the borough that is used to fund a wide range of infrastructure projects (including open space and public transport improvements) to meet the demands arising from the borough's growth. Exceptions to this charge include schools, health facilities, charitable development and self-build housing.

Conservation areas: An area of special architectural or historic interest, the character or appearance of

which it is desirable to preserve or enhance.

Development plan: Enfield's development plan is made up of the following documents:

- London Plan
- Local Plan
- Any Neighbourhood Plans which come forward

The development plan sets out specific policies to guide the use of land and buildings, acting as the starting point in the assessment of planning applications.

Ecological assessment: A systematic evaluation of the potential ecological impacts of the development (based on current and future conditions) and the proposed measures to mitigate them (either on or off site).

Greater London Authority: A top-tier administrative body covering the Greater London area. It is composed of two parts: the London Assembly and the Mayor of London as defined under legislation. The London Assembly scrutinises the activities of the Mayor of London in the public interest.

Green Belt: A designation around the built-uparea of the borough which aims to keep this land permanently open or largely undeveloped. Its purposes are to:

- check the unrestricted sprawl of large built up areas:
- prevent neighbouring towns from merging;
- safeguard the countryside from encroachment;

- preserve the setting and special character of historic towns; and
- assist urban regeneration by encouraging the recycling of derelict and other urban land.

Green flag awards: This is the national quality benchmark that recognises and rewards well-managed and publicly owned parks and green spaces. Awards are given on an annual basis and winners must apply each year to renew their green flag award status. Enfield's parks have won several green flag awards over the years.

Green grid: A network of inter-linked high quality and multi-functional open spaces, watercourses and other corridors.

Green roofs or living roofs: These are roofs covered in vegetation/planting. These are classified into three main types:

- Extensive (lightweight, low maintenance option)
- Intensive (heavier weight and deeper vegetation but more costly to maintain)
- Semi-intensive (combination of the two other options)

Historic Environment Record: Information services which provide access to details on historic assets and landscapes covering a defined geographic area held in an on-line database.

Historic parks and gardens: These range from town gardens and public parks to the great country estates, and reflecting the styles and tastes of past generations, from Medieval knot gardens and deer parks to 18th-century landscaped gardens,









Victorian exotica and post-war examples. Statutory parks are listed on Historic England's register (e.g. Trent Park).

Infrastructure Delivery Plan: This sets out what infrastructure is required to support the levels of growth set out in the Local Plan, how it will be funded, who will deliver it, and when it will come forward.

Lee Valley Regional Park: A 4,000 hectare (10,000 acre) regional park that stretches over 26 miles on both sides of the River Lee, from the River Thames to Ware in Hertfordshire, featuring a mosaic of open spaces, reservoirs, heritage parks, and a diverse mix of leisure and recreation activities (653 hectares, or 16.27% of the total park area, lies within the borough of Enfield). However, the park represents an underused asset and parts of it remain inaccessible to the public...

Lee Valley Regional Park Authority: A statutory body that runs and manages the Lee Valley Regional Park and wide range of leisure, sport and recreation, including nature conservation facilities

Local list of heritage assets: A list of heritage assets that are valued as distinctive elements of the local historic environment.

London Plan: The London Plan is the spatial development strategy covering the Greater London area. In London, Local Plans must be in general conformity with the London Plan.

Meanwhile uses: This term refers to the short-term use of vacant property (e.g. shops or offices) or land until it can be brought back into permanent use. Meanwhile uses include events, exhibitions. artist studios, pop-up shops and market stalls.

Metropolitan Open Land: Strategic open land within or adjacent to the urban area of Enfield that contributes to the structure of London and has the same protection as the Green Belt.

Mini/tiny forests: This initiative seeks to bring the benefits of a native forest - reconnecting people with nature and bringing awareness of environmental issues, helping to mitigate the impacts of climate change, as well as providing nature-rich habitat patches to support urban wildlife - right into the heart of our urban areas and civic spaces. As they are just the size of a tennis court, they can fit into urban areas where space is often at a premium.

Multifunctionality: This term refers to the integration and interaction of different green and blue infrastructure functions or activities on the same piece of land

Nature recovery network: A network of linked corridors of environmentally rich habitat that allow plants and animals to move from place to place and enables species to adapt to change

National Planning Policy Framework (NPPF): This document sets out the government's planning policies and how these will be applied.

National Planning Practice Guidance (NPPG): An online resource providing up-to-date government guidance on the planning system

Open space consolidation: Combining open space and other green features into a well-designed and more effective, coherent whole. Open space should complement other spaces and be integrated into the wider public realm, thus avoiding fragmentation across sites and allowing a greater range of activities and functions.

Policies Map: A map illustrating the policies and proposals of the Local Plan.

Priority habitats and species: Priority habitats are a range of semi-natural habitat types that have been identified as being the most threatened and requiring conservation action. In Enfield, these include rivers, hedgerows, ponds, lowland (mix deciduous, beech and yew) woodland, lowland dry acid grassland, lowland meadows, traditional orchards, wet wood and arable field margin. The vast majority of these habitats can be found within the north and north west of the borough from the Lee Valley across to Trent Park.

Priority species are groups of rare or threatened species in Enfield (bats, black poplars, amphibians and reptiles). A full list of priority habitats and species recorded in Enfield can be found in the accompanying audit.

Public art: Fixed artworks which members of the public are able to access and appreciate. Works may be sited in the public, civic, communal or commercial domain, in semi-public or privately owned public space, or within public, civic or institutional buildings. Artworks can form part of the structure or decoration of buildings, landscapes and streetscapes.

Public parks: Publicly accessible sites comprising pocket, local, linear open space, district, metropolitan and regional parks. This amounts to over third of the total open space in Enfield.

Public realm: The space between and surrounding buildings and open spaces that are accessible to the public and include streets, pedestrianised areas, squares, river frontages.

Ramsar sites: Wetlands of international importance (e.g. Lea Valley Special Protection Area)

Section 106 agreements: These are legally-binding agreements negotiated between local authorities, developers and landowners through the planning application process. The agreement will contain a planning obligation to enable us to secure, or the developer to offer, restrictions on the use of the land or the operation of the development or to make contributions towards infrastructure and facilities (e.g. affordable housing).

Financial contributions are usually be payable on the commencement of the proposed development following the granting of planning permission. In certain circumstances, developers will be able to request staged payments or instalments (e.g. large, multi-phased developments).

Sites of nature conservation importance : These are

non-statutory areas of land (also known as wildlife sites) that are designated due to their importance to nature conservation.

In Enfield, there are three grades of sites of nature conservation importance:

- Sites of metropolitan importance. These are the best examples of wildlife habitats in London, and they often contain rare plants and animals.
- Sites of borough importance. These sites are important wildlife habitats in a borough perspective.
- Sites of local importance. These sites ensure everyone has easy access to nature close to home

Special areas of conservation (SACs): Designated area to conserve natural habitats and wild fauna and flora of international importance.

Special protection areas (SPAs): Designated area to protect rare, vulnerable and migratory birds of international importance.

Strategic development: Proposals involving over 100 homes or 10,000 square metres of floorspace.

Supplementary Planning Document (SPD): A document which helps explain how policies and proposals in the Local Plan will be applied and implemented.

Sustainable drainage systems: A sequence of water-management practices and facilities designed to drain surface water and protect against flooding. Examples include ponds, reed beds, drainage channels, soakaways, swales and porous driveways.

Urban greening: This term covers a wide range of natural (e.g. street trees) and purpose-built features (e.g. nest boxes, green walls and rain gardens). Increasing urban green cover is a key policy requirement of the London Plan.

Village greens: A protected area of common land within a village or other settlement. The register of village greens and associated maps are held at the Civic Centre (Silver Street, Enfield).

Zone of influence: A 6.2 kilometre buffer zone surrounding the Epping Forest Special Protection Area (based on the distance the majority of visitors will travel to visit) that is used to determine the recreational impact of proposed housing developments on the area.

All residential development within the zone of influence (as shown on figure 5) that has the potential to increase recreational pressure on the forest will require a financial contribution to appropriate mitigation measures, such as well-designed open space and new or improved active travel routes.

The above measures also relate to other European sites in which Enfield sits within the zone of influence. This includes the Lee Valley Special Protection Area and Ramsar (both the site in the south in Waltham Forest and the site to the north straddling Essex and Hertfordshire) as well as the Wormley Hoddesdonpark Woods SAC to the north of Enfield (in Hertfordshire). Recreation surveys and the location of these sites across areas of open countryside mean there is unlikely to be a significant risk of increased recreation pressure from development in Enfield. As such, the provision of mitigation measures in respect of these other sites may not be required in Enfield.









### Notes

- <sup>1</sup> Other health benefits include reduced physical illness (e.g. cardiovascular disease, coronary heart diseases and stroke and type 2 diabetes), noise reduction and reduced social and health inequalities.
- <sup>2</sup> https://assets.publishing.service.gov. uk/government/uploads/system/uploads/ improvingaccesstogreenspacereview.pdf
- <sup>3</sup> Mental Health Needs Assessment for Enfield (NHS, 2016)
- <sup>4</sup> Public Health Profiles (Public Health England)
- <sup>5</sup> Further details about the concept of the 'national park city' and how it will work in practice can be found from www.london.gov.uk/what-we-do/ environment/parks-green-spaces-and-biodiversity/ london-national-park-city.
- <sup>6</sup> For instance, Enfield is a partner of CAMELLIA (Community Water Management for a Liveable London and BEGIN (Blue Green Infrastructure through Social Innovation). Further details about the research projects can be found at https://www. imperial.ac.uk/environmental-and-water-resourceengineering/research/camellia and https://keep.eu/ projects/19128/
- <sup>7</sup> Understanding climate change from a global analysis of city analogues (PLOS, 2019)
- <sup>8</sup> London Environment Strategy (Mayor of London,

2018)

- <sup>9</sup> Many of these transport links serve central London, running north-to-south. However, this effectively sever links between communities in the east and west of the borough, contributing to social/economic disparities.
- <sup>10</sup> Enfield's Strategic Flood Risk Assessment provides information on the extent of flood risk within the borough.
- <sup>11</sup> The Enfield Climate Action Plan sets out a target to achieve a 25% net increase in blue-green infrastructure, including new parks, habitat creation/ restoration, improved access to waterways and green roofs. Sections 4-5 of the strategy sets out further detail on how this target will be achieved.
- <sup>12</sup> Based on a typical walking speed of 3mph, this equates to 0.75 miles or 1.2 kilometres.
- 13 https://www.sportengland.org/how-we-can-help/ facilities-and-planning/design-and-cost-guidance/ active-design
- <sup>14</sup> The Enfield Playing Pitch Strategy sets out priority locations/actions to facilitate the provision of football, rugby, hockey and tennis pitches (grass and artificial) to meets the needs of existing and future residents.
- <sup>15</sup> The 30% target has been established based on comparable exemplar developments in London,

- such as Elephant and Castle and Kings Cross (Meridian Water Sustainability Strategy, October 2020).
- <sup>16</sup> Further detail on the proposals in this area can be found in the Lee Valley Regional Park Authority's Park Development Framework (Banbury Reservoir to Picketts Local and King George V Reservoir to Rammey Marsh).
- <sup>17</sup> For further information, please refer to the Parks and Open Spaces - Outdoor Events Policy (July 2020).
- <sup>18</sup> In Enfield, there are two types of contribution: the community infrastructure levy and section 106 agreements as explained in the glossary at appendix 2).
- <sup>19</sup> Further details on accessibility catchment areas are set out in the Enfield Blue and Green Infrastructure Audit.
- <sup>20</sup> These registered parks and gardens have entries on the Historic England register of heritage at risk.



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