### Disclaimer

It is acknowledged by Brentwood Borough Council that the Green Infrastructure Strategy 2015 will require review and update upon receipt of the Open Space and Sport Assessment, and the Landscape Sensitivity and Landscape Capacity Study which have been commissioned by the Council. Both studies are due for publication in the of Spring 2016.

## BRENTWOOD BOROUGH COUNCIL

## Green Infrastructure Strategy

September 2015



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- 3. Contribute to initiatives to create and sustain an accessible, multi-functional, Borough wide green travel network.
- 4. Promote and develop outdoor sport, recreation, play, art, heritage & education
- 5. Provide opportunities for an economically useful and productive landscape
- 6. Minimise the impact of and adapt to the effects of climate change

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## 1. INTRODUCTION

## The Strategy

This Strategy provides a framework for the Council and local partners across a wide range of specialist areas relating to the outdoor environment. It touches on a wide range of themes. Those relating to Planning Policy will be embedded in the Local Development Plan, and others will be progressed through inclusion in emerging policy, related strategies, and work streams of the Council or other partners.

This Strategy provides a set of Green Infrastructure principles; aims; improvement possibilities and key recommendations. This Strategy aims to be the foundation and enabler of smarter working between stakeholders; future location or theme specific Action Plans; and to highlight and prioritise the most needed improvements to local green spaces.

## The Vision

To support, enable, and plan high quality inter-connected networks of multi-functional green infrastructure capable of supporting the needs of Brentwood and the wider region and context Brentwood is part of.

### Please Note:

The views in this report are those of the Consultant and cannot be taken as representing the views of Brentwood Council, or other stakeholders who have been consulted on this document to date.

## The GreenArc Strategic GLINITIATIVES

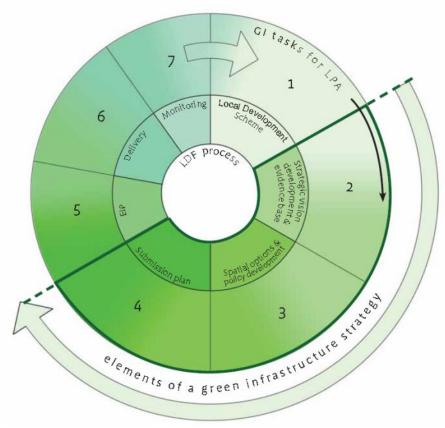
There is also a wide array of existing strategic green infrastructure initiatives operating in the GreenArc, such as the Thames Chase Community Forest and associated network of promoted greenways and the Lee Valley Regional Park. Also the Stort Valley and associated package of recently implemented and ongoing projects such as the Stort Valley Path, (shared use

commuting and recreational route).
The GreenArc also has clear physical links to
wider strategic GI initiatives in adjacent counties, such as the Thames Gateway Parklands
in Essex and the Olympic Park legacy (Queen
Elizabeth Legacy Park) in the lower Lee Valley

Against this must be considered issues of green infrastructure need and demand at the strategic level, how existing green infrastructure is performing, and the potential for green infrastructure to contribute to landscape and environmental enhancement in more fragmented parts of the GreenArc (presence of major transport corridors and associated barriers, areas of high deprivation and proposed growth locations).



Figure 4.2: Integrating green infrastructure, green infrastructure strategies and the spatial planning process



GI tasks for LPA

1 -Identify how GI will be addressed in Confirm membership and the Local Development Framework.

2 -Environmental characterisation of plan area.

-E stablish local need for GI

functions. -identify deficiencies in existing GI

(amount and type). -initial assessment of broad opportunities and key delivery

-Document evidence base for future

Respond to consultation on options development.

3 - Identify Clopportunities. -Develop spatial Gloptions. -Develop supporting policy options.

-Consult GI stakeholders. -Refine Options.

-Other relevant strategies. -Initial scoping of delivery

mechanisms.

4 Develop spatial plan for GI network

-Strategic GI on Key Diagram. -All Gi in Site Allocations / DPD / Area Action Plan

-Core Strategy policy framework. -Consult on and define delivery and long term management mechanisms.

5 -Refer to GI evidence base, if required.

6 -Secure relevant Local Area Agreement targets. -Planning decisions.

7 -Monitor performance of GI in relation to identified functions.

Gladvisory group role

roles of local GI Advisory Group to LPA. Comment on approach to GI in LDS.

Make data available for environmental characterisation. Advise on standards and other methods for assessing need.

Address conflicts between environmental stakeholders.

Respond to consultation on delivery mechanisms.

provide expert witnesses, if required.

Advise on models for delivery.

Promote standardisation of monitoring across region. Highlight instances where management is diverging from planned function.

"Natural England recommends that all local Strategy. Strategies can be produced at the

early in the evidence gathering process when making spatial plans."



## 2. WHAT IS GREEN INFRASTRUCTURE

Green infrastructure (GI) is a network of multi-functional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities.

Planning Guidance Para: 015 Reference ID: 8-015-20140306

In Brentwood **Green Infrastructure** includes parks; open spaces; recreational sports facilities such as golf courses, cricket, rugby and football pitches; woodlands; wetlands; grasslands; rivers and canal corridors; allotments; cemeteries; and private gardens.

## Why is Green Infrastructure important?

Green Infrastructure can provide many social, economic and environmental benefits close to where people live and work including:

- Local distinctiveness and beauty in the character of landscapes, townscape, & riverscapes
- · Space for healthy ecosystems to develop and habitats for wildlife
- An accessible and integrated network of green travel routes for commuting and leisure
- Places for outdoor sport, exercise, play, education and relaxation
- Local food production in allotments, gardens and through agriculture
- Climate change adaptation for example flood alleviation & cooling urban heat islands, (as referred to in the NPPF 2012 - see opposite)

## Planning at all spatial scales and all timescales

It is important to remember that GI needs to be planned and delivered at all spatial scales - nationally, regionally, locally, and at a neighbourhood scale. In addition, this Strategy aims to underpin improvements in GI creation and management over the short and medium term (5-15 years), while recognising that the benefits will extend over the longer term (50+ years), for eg. Impacts on air quality, tree cover, water attenuation.



The NPPF manages the risk of new development in vulnerable areas, through suitable adaptation measures, including through the planning of green infrastructure.

### In addition:

"Local planning authorities should: set out a strategic approach in their Local Plans, planning positively for the creation, protection, enhancement and management of networks of biodiversity and green infrastructure."



## 3. BRENTWOOD'S NEED FOR A GI STRATEGY

### Brentwood's Green Infrastructure

Brentwood's attractive location is enhanced by the quality of the local environment.

Less than 20% of the Borough is built-up.

Brentwood Town itself has a well-landscaped character, which softens the impact of the built environment and enhances the visual quality of the town. There are a number of important green wedges reaching into the built-up area, two of which extend right to the centre of the town - Hartswood/Shenfield Common, and the Brentwood School/former Anglia Polytechnic University Playing Fields. Thriftwood is also an extensive area of woodland set within the town.

The remainder of the Borough is predominantly in agricultural use, but much of the rural area is characterised by an attractive rolling landscape incorporating small woodlands, hedgerows and trees. The countryside in Brentwood does form part of what can be called the 'ancient countryside' of the wider Essex region - with small irregular fields amidst commons, and woods, and dispersed settlements.

However, the influence of Brentwood's geology means as a Borough it has the highest hills in Essex capped with the loamy Claygate and sandy Bagshot beds.

The location and character of the Borough of Brentwood, summarised above, plays a large part in determining the scope and detailed content of the policies set out in the Brentwood Preferred Options.



The Character of England report by Natural England's predecessors identified 76 Natural Areas for England, 3 of which relate to Brentwood:

East Anglian Chalk - distinct from the surrounding countryside, comprising low-lying chalk hills dissected by river valleys. This Natural Area can be typified by large arable fields, with scattered chalk grassland, where woodland is largely restricted to ancient woodland on the heavier soils and extensive secondary woodland shelterbelts in the Newmarket area

East Anglian Plain - an ancient landscape upon which modern agriculture has been imposed. There is a complex network of old hedgerows, ancient woods, villages, hay meadows and pastures, streams and rivers, and wetlands, set in arable land. Much of the vegetation=s character derives from the widespread chalky clay soils deposited by glaciers over chalk rock.

London Basin - a large, trough-like basin which was formed around 50 million years ago, and is filled with mostly sands and clay sediments. About one-third of the area is covered by London and the wildlife of the Natural Area is characterised by islands of semi-natural habitats. These habitats include large areas of woodland, with extensive stands of mature beech woods, significant areas of lowland mixed deciduous woodland and numerous large wood pastures and parklands. There are also notable areas of heathland in the Natural Area.



Brentwood's Borough's Green Infrastructure also comprises a high number of Sports facilities including school grounds, golf courses, cricket clubs, football clubs and recreation grounds. Many of these sites are in the urban fringe of Brentwood Town, or on the outskirts of the small villages. These areas, of more 'designed' green infrastructure, are often of particularly high importance because of their proximity and accessibility to large numbers of people. Often not protected by current planning or biodiversity designations, they can be vulnerable to development, and as such may be suitable for protection under other the new Local Green Space designation covered by NPPF 2012.

## Brentwood's Replacement Local Plan, 2005

This document forms the current planning policy framework for the Borough, and the Aims and Objectives of the Green Belt and Countryside policies set out the current policy background to Brentwood's understanding of it's responsibilities to conserve and enhance it's Green Infrastructure.

### **Overall Aim**

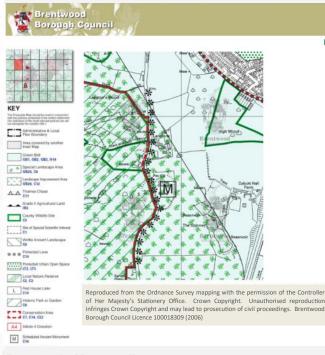
To maintain the extent, character and openness of the Borough's countryside

## **Supporting Objectives**

- To conserve & enhance the character, appearance and ecological value of the countryside
- To resist inappropriate development or that giving rise to unacceptable increases in activity
- To maximise public access to and enjoyment of the countryside for passive and active recreation, compatible with the conservation of its character, appearance and ecological value
- To avoid the loss of the best and most versatile agricultural land
- To promote opportunities for the development and enhancement of sustainable rural communities and a sustainable rural economy

In addition it recognises that: "Conservation of the natural environment cannot be achieved solely by site protection. It also depends on wise management of such features and land and water resources as a whole. To achieve this requires communication and co-operation between those whose activities change the character of the environment and those who seek to conserve its most valuable elements."





Proposals Maps online Brentwood Replacement Local Plan, 2005



## The Survey and Assessment of Needs and Audit of Open Space, Sport, and Recreation Facilities

The Council produced this Study in 2007 to:

- provide an evaluation and summary of the local needs assessment, which has assisted in identifying areas of high and low priority throughout the Borough
- provide an analysis of existing provision for each type of open space
- present a set of quantity, quality and accessibility standards for appropriate typologies
- enable the Council to ensure the most effective and efficient use of open spaces within the Borough and plan and respond appropriately to development pressures
- provide the necessary information to be used in developing a strategy for the future management and development of open space.

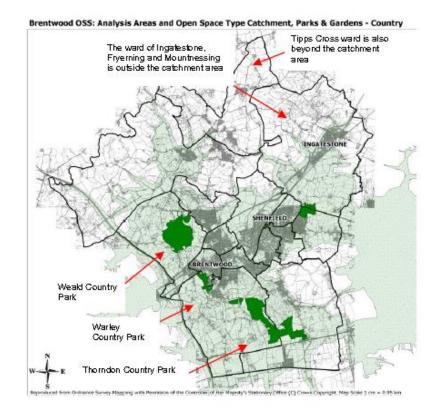
These Open Space, Sport, and Recreation Facilities have been grouped into the following categories:

- Parks and gardens
- Natural and semi-natural
- Amenity greenspace
- Children and young people
- Sports facilities
- Allotments and community gardens
- Cemeteries and churchyards
- Green corridors and civic spaces

In terms of Green Infrastructure though, it should be remembered that although the Open Space Audit is fairly comprehensive - it is not synonymous with **Brentwood's Green Infrastructure** which also includes large land areas of rural farmland, private gardens and the grounds of businesses, and other organisations; as well as street trees, and smaller areas of shrubs, planting, grass, and streams.

The categories highlight the types of key partners & stakeholders that need to work together to plan, provide, & manage networks of connected, accessible multifunctional green infrastructure in Brentwood.

Figure 5.2 Spatial distribution of country parks







## Why do we need a Green Infrastructure Strategy?

The Figure's opposite and on the following pages, highlight the Strategic context, and show Regional Gl Plans covering Brentwood, or bordering on it. However, there is a real need to plan Gl at Borough level.

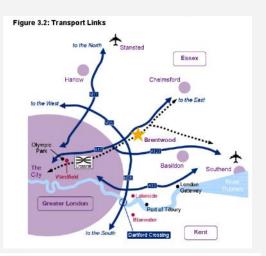
## The Brentwood GI Strategy will provide a framework:

- To set out mechanisms to maintain and enhance the distinctive open rural character of the Brentwood landscape within our requirement to meet future housing and development needs; and against pressures for the increasing expansion of London.
- To highlight the interconnectedness and interdependency of the policies and practices of different Council departments and stakeholder groups that affect the viability of improving the GI in Brentwood
- To support more detailed planning policies on GI in development documents and any supplementary planning documents

Brentwood is required by National Government to make plans to meet future housing needs based on independently assessed future population growth predictions. The most recent Housing Needs Update, BBC, of June 2013 puts the estimates of the annual housing need at up to 362 houses per year, or up to 5,430 over the lifetime of the new Local Development Plan period (2015 - 2030).

The Council is currently reviewing these figures and considering what the Borough can sustainably accommodate bearing in mind:

- Capacity of key infrastructure, such as roads & utilities
- Transport; public walking, cycling & equestrian provision
- Access to services, such as schools, shops, GPs and community facilities
- Availability of land in sustainable locations
- Impact on Green Belt
- Environmental constraints, eg. flooding & nature conservation
- Landscape sensitivity



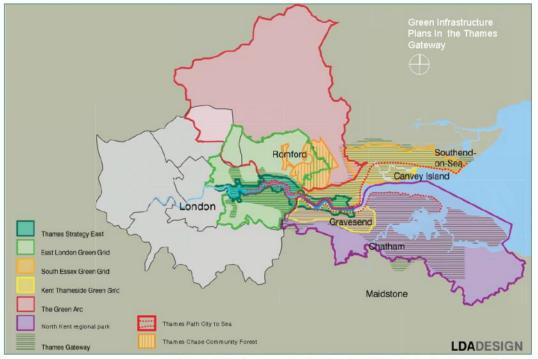
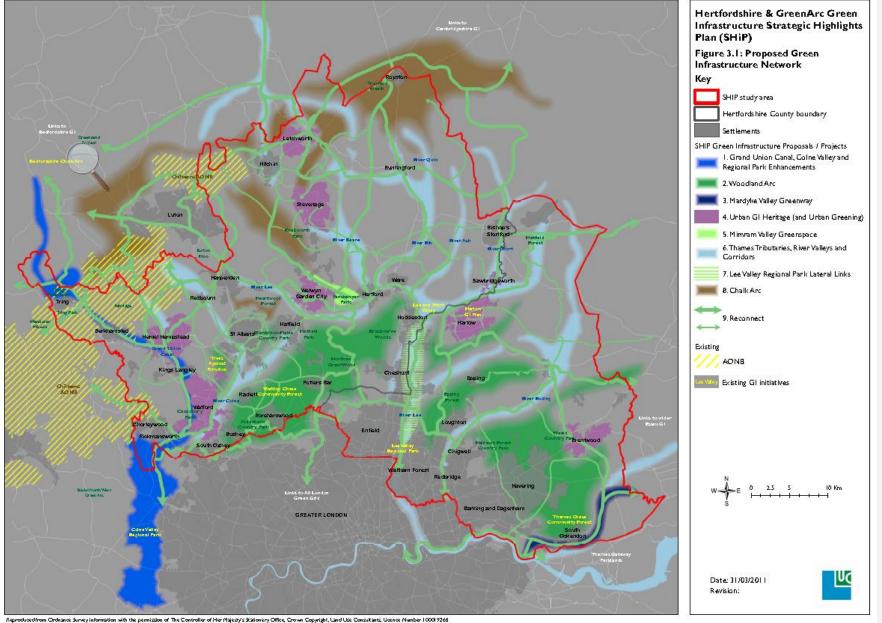


Figure 3 Environmental Infrastructure Planning in the Thames Gateway

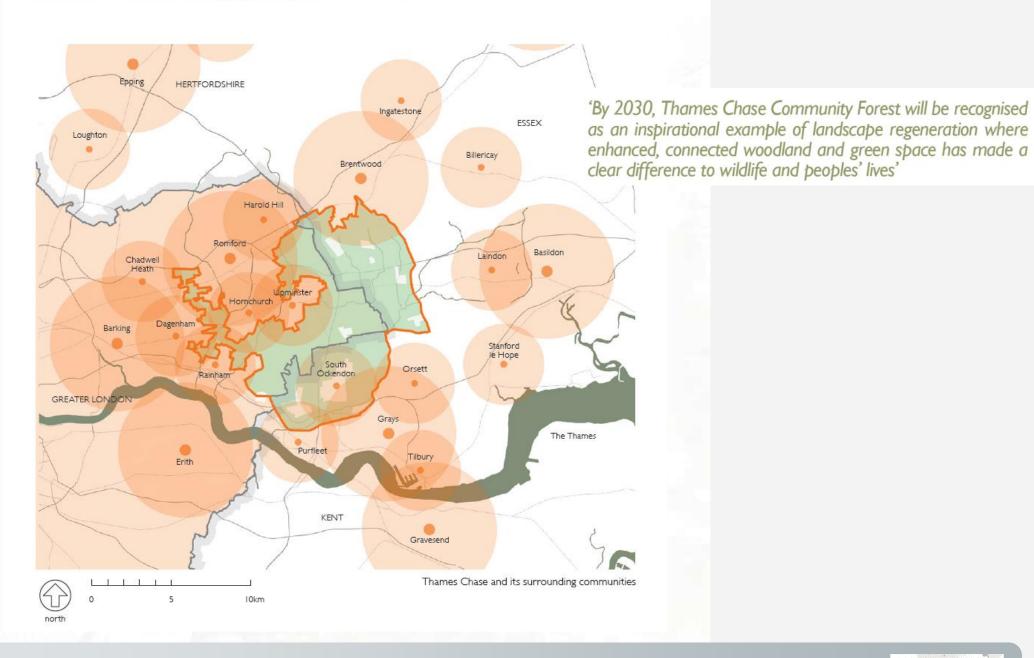
1899 / Thames Gateway South Essex Green Grid Strategy





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## 4. GREEN INFRASTRUCTURE FUNCTIONS

... Beauty, and the sights, smells, and sounds of the seasons ...

Green Infrastructure functions are the roles that the particular GI assets play, as supported and integrated into the wider ecosystems and natural features that sustain them.

GI can range from a single street tree to a whole parkland; and both of these would serve multiple Green Infrastructure Functions. Just one street tree would often perform all these following functions - many previously unrecognised by policy makers, and land managers. One street tree would often be:

- a home for nesting birds, bringing the sounds of their songs into the street;
- a valuable habitat for other wildlife and insects;
- taking pollution out of the air improving air quality;
- alleviating flooding by managing the water table;
- creating the beauty of the streetscene, and hence improving well being
- Expressing the changing seasons, with the sounds of the wind in the leaves, and the colours of the autumn leaves all enhancing the well being of people travelling by
- providing shade in summer and a place for children to play on the way home from school, including the risk and adventure of climbing on branches
- an absorbing educational and play activity discovering conkers, or acorns on the ground
- A critical part of high property prices and desirability of an area, so underpinning economic and business success



"We define GI as the network of natural and semi-natural features, green spaces, rivers and lakes that intersperse and connect villages, towns and cities.

It is a natural, service-providing infrastructure that is often more cost-effective, more resilient and more capable of meeting social, environmental and economic objectives than 'grey' infrastructure."

Green Infrastructure 2013
THE LANDSCAPE INSTITUTE



## 6 main functions of Green Infrastructure

The concept of Green Infrastructure is very broad - and aims to highlight the inter-relatedness of the different natural elements and systems that we depend on. However, when looking to take account of this in policy and department areas it is helpful to break it down around some of the main functions that Green Infrastructure performs for people.

The exact 'Policy' wording of these functions fits with the Brentwood context, planning policy development, and understanding, and is given in the following chapters, but the broad aims and functions of Green Infrastructure in Brentwood are listed below:

## **GREEN INFRASTRUCTURE FUNCTIONS**

- 1. Creating a high quality, distinctive landscape character LOCAL DISTINCTIVENESS
- 2. Providing a network of healthy, wildlife rich natural ecosystems
- 3. Contributing to an accessible green travel network for people (The Green Grid)
- 4. Promoting outdoor sport, recreation, play, art, heritage, & education (incl. 'health and wellbeing' aims)
- 5. Creating an economically useful and productive landscape eg. Forestry, water storage, grazing, energy
- 6. Minimising the impact of and adapting to the effects of climate change

The following chapters aim to set out each function the Brentwood green infrastructure plays, in terms of a summary of:

- 1. relevant available baseline data, and background information
- 2. clear aims to build consensus and future partnerships around, and
- 3. comment on the potential for improvement of this particular GI function in Brentwood



## CONNECTIVITY

Connectivity between different GI assets can help maximise the benefits that they generate. Well connected GI assets create infrastructure that is adaptive and resilient to changes in climate, such as dramatic increases in rainfall. Physical connections make the most impact, often by creating ecological stepping stones that encourage biodiversity migration and connect places with sustainable walking or cycling routes.

Green Infrastructure 2013 THE LANDSCAPE INSTITUTE



## 1. Strengthen the high quality, distinctive countryside, town, and village character

## **EXISTING REPORTS, STRATEGIES, & TERMINOLOGY**

The Mid Essex Landscape Character Assessment, 2006 identifies 9 Landscape Character Areas in Brentwood: 7 of which, and the majority of the Borough, fall into the **Wooded Farmland** Character Type, the Roding **River Valley** is on the northern edge; and Hordon Fenland is on the southern edge. Most of Brentwood has a rural character and is within the Metropolitan Greenbelt for London.

## AIMS

- Protect and improve the visual, functional, and ecological integrity and character of the nationally significant and distinctive countryside asset; including Conservation Areas and TPOs.
- Protect, restore and enhance the Ancient Woodland blocks; Conservation Areas, working faming industries and villages; natural watercourses, fenland, and associated habitats.
- Strengthen the landscape character of the urban areas; to reinforce Brentwood's green identity as distinct and different to other regional urban centres so enhancing regional variation and richness.
- Use green infrastructure features in new development to help create a high quality, distinctive employment and residential sites in line with the identity of Brentwood.

### POTENTIAL FOR IMPROVEMENT

While over 80% of the Borough is rural landscape in character, it is important to also plan the strengthening of a distinctive character for the urban areas and outlying settlements. A character potential study, imagining the possibilities of strengthening distinctive characters for the settlements, including the accommodation of future development, is important to ensure Brentwood's character is enhanced and not compromised through ongoing and increasing development pressures in future. This will increase the resilience of Brentwood to change. A post of GI Delivery Officer - able to kickstart and facilitate landscape character, urban design, art and ecology projects could encompass and unite a wide range of themes, departments, and GI functions, realising high impact, best value outcomes for Brentwood.







## 1. Strengthen the high quality, distinctive countryside, town, and village character

	KEY RECOMMENDATIONS	REASON							
1.1	Commission a Character Potential Study of the Borough	As a settlement on the edge of London, Brentwood is vulnerable to being part of the urban fringe of London - with the associated characteristic urban fringe pressures including degradation of character and condition of the landscape. would be good to proactively guard against this by identifying and protecting the Brentwood Wooded Farmland character. <i>Mid Essex Landscape Character Assessment 2006</i>							
1.2	Collectively protect key landscape assets forming the distinctive character of Brentwood eg. Wooded farmland, fenland, river valley, and ancient woodlands with coppicing.  - in consultation with neighbouring authorities so that features are protected and enhanced in their entirety across the Council boundaries as	It is crucial that public bodies; charitable organisations; and local communities work together proactively to retain the diversity of the UK landscapes in the face of homogenising global market forces. For quality of life reasons; as well as wildlife; heritage; cultural; well being; educational; and climate change reasons, amongst others.							
1.3	Strengthen character of settlements receiving new development Create memorable but sensitive, high quality public spaces and green travel links, and key 'Gateways'. There is potential to work with the local community to improve the character, ecology, and accessibility of the surrounding countryside to mitigate against any loss in amount of it.	To improve local distinctiveness.							



# 2. Conserve and enhance the countryside to improve biodiversity and create more wildlife corridors between natural ecosystems.

## **EXISTING REPORTS, STRATEGIES, & TERMINOLOGY**

The Essex Biodiversity Action Plan, outlines habitats of special local significance in Brentwood: - commons, public and private woodlands, tree belts, lowland grassland, lakes and ponds, hedgerows, and a number of protected lanes. Brentwood contains 3 Sites of Special Scientific Interest (SSSIs); and 147 sites identified as Locally Important Wildlife Sites\*. There is an emerging network of Local Geology / Geomorphological Sites. It is worth also remembering the role these natural assets play in landscape character, education, and recreation; and managing flood risk and climate change - other functions of GI.

AIMS

W1	To bring about the sustainable management of the existing Local Wildlife Sites ensuring their natural assets are conserved and enhanced in the long term; in particular the coppicing of ancient woodland; and limiting the effects of disturbance by deer populations.
W2	Carry out proactive conservation enhancements to the countryside making up the majority of the Borough's natural asset, linking with green travel links to improve the connectedness of habitats.
W3	Improve the biodiversity value of the settlements, gardens, public open spaces, and road verges.
W4	Designate Local Green Spaces where appropriate to protect the wildlife value of green spaces valued by the community.
W5	Maintain and improve the Borough's air and water quality

### POTENTIAL FOR IMPROVEMENT

Looking at Brentwood's Green Infrastructure as a whole - there is a danger that the ecological value of the majority of it's rural countryside character is not sufficiently protected. Sites meeting requirements of 'Special Wildlife Sites', though many - are small and relatively isolated from each other; and there are no existing designations available that can cover the high cumulative ecological value of large tracts of countryside. Designating Local Green Spaces could be one option near to communities; as would strong proactive projects with local farmers - particularly in the more connected, larger, Living Landscape Areas.

\*Shown on the Map on p17, and listed in the Brentwood Local Wildlife Sites Review 2012

With continuing pressure for expansion of urban areas, changes in the agricultural economy and the encouragement of diversification, along with greater demands for access to the countryside for recreation, it is also necessary to have a better understanding of its natural character.

Brentwood Replacement
Local Plan 2005

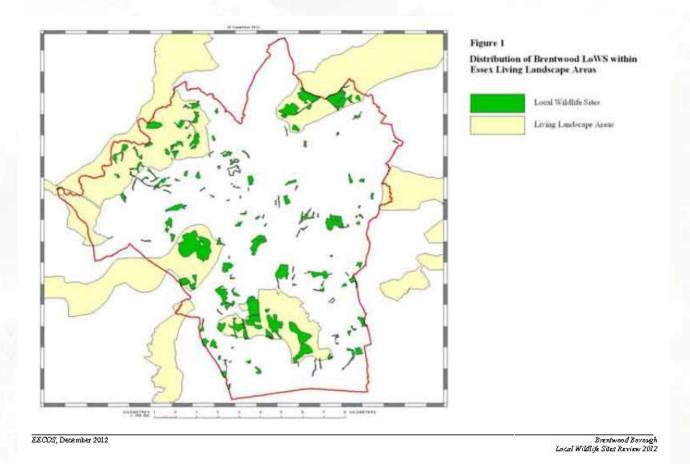


# 2. Conserve and enhance the countryside to improve biodiversity and create more wildlife corridors between natural ecosystems.

	KEY RECOMMENDATIONS	REASON						
2.1	MANAGEMENT  A person of a Senior Management level tasked to ensure that the existing networks of natural ecosystems are improving and under the correct management.  To Chair, and be accountable to a Steering Group of key partners, Stakeholders, and Members overseeing that natural ecosystems are thriving and improving, not being lost - as in the case of the Roadside Verge habitats.	Management and <b>partnership working</b> are therefore essential in ensuring that habitat enhancement schemes are successful. Working with bodies that have a special interest in the natural environment will be needed, including Natural England, the Royal Society for the Protection of Birds, Essex Wildlife Trust, Forestry Commission, Environment Agency, farmers and landowners.						
2.2	DESIGNATION OF LOCAL GREEN SPACES - rich in wildlife	To protect urban green spaces eg. School grounds, private sports clubs or other being developed, or reduced in size.						



# 2. Conserve and enhance the countryside to improve biodiversity and create more wildlife corridors between natural ecosystems.



Map taken from the Brentwood Local Wildlife Site Review, 2012



## 3. Contribute to initiatives to create and sustain an accessible, multifunctional, Borough wide green travel network.

## **EXISTING REPORTS, STRATEGIES, & TERMINOLOGY**

Regionally, the TGSE Green Grid Strategy and the Thames Chase aims have both proposed increases in green travel routes. Locally, a Green Travel route, (triangle) is proposed between Brentwood Town Centre and new development sites at West Horndon and Brentwood Enterprise park, and the Council is also to support Cross Rail, but there are no other local plans. A more innovative and proactive Alternative Approach to Green Travel, as described in the Preferred Options report, has been rejected due to lack of commitment from partners, but the GI benefits from taking it forward would be very significant.

## **AIMS**

	Provide new green cycling, walking, & riding routes for people to travel to work & school; to rail
A1	stations; to sport, leisure, & play destinations; the Country Parks, and town and village centres.
A2	Design green infrastructure for safe, positive use by people of all age groups and abilities.

### POTENTIAL FOR IMPROVEMENT

Within the Green Infrastructure Potential 'KEY OPPORTUNITY PROJECTS'; (as identified in Section 5); there is potential to realise a visionary forward thinking Project to create a sensitively designed, rural in character, network of green corridors that could bring huge gains in all 6 GI functions to many people and businesses in the Borough through also strengthening the heritage, Conservation Areas and traditional rural character of the Borough too.

New green travel links improve health and well being for commuters and local residents; help with movement of wildlife; and improve accessibility to open space for a rising population. However, historically, the development of projects to enhance these areas and build new travel links has stalled because of various reasons includina:

- Lack of financial viability for the landowners to fund the enhancement of the sites
- Complex and multiple landowners, including BBC, with differing or unclarified agendas
- Perceived or real inflexibility of the Planning policy framework.

  Lack of a lead partner to initiate and drive through these Major Projects involving multiple landowners, partners, and community groups in a changing political landscape.

BBC or other partners, or commercial businesses could look at funding & structural options for resourcing the effective project management of these major GI Key Opportunity Sites.

## THAMES GATEWAY SOUTH ESSEX GREEN GRID example

A living system threading through the urban and rural landscape, connecting places that are attractive to people, wildlife and business, and providing clean air, food, water, energy, minerals and materials.

It will link every resident with the fine townscapes, landscapes and riverscapes in the area from Doorstep to Countryside and Estuary by foot, by bicycle, by road and by rail via a sequence of civic squares, streets, boulevards, parks, gardens, green corridors, outdoor sports areas, children's play areas, allotment and community gardens, city farms, cemeteries and churchyards, country parks, hills, marshes, creeks, estuaries, etc. The notion of the Harlequin Landscape is also promoted to ensure that the emotional dimensions of outdoor space are not forgotten.



# 3. Contribute to initiatives to create and sustain an accessible, multifunctional, Borough wide green travel network.

	KEY RECOMMENDATIONS	REASON
3.1	AGREE PROCESS FOR IMPLEMENTING & MONITORING THE GI STRATEGY - IN PARTICULAR: THE GREEN CORRIDORS  To create a Vision, Strategy, and Action Plan for a network of multifunctional Green Corridors bringing gains across all 6 GI functions, realising high impact, best value outcomes for Brentwood; and linking into surrounding green infrastructure and plans.  This could involve a Steering Group of all major partners; with a Brentwood Borough Council Green Infrastructure Project Office leading the Vision, fundraising, and delivery of the Project.	To improve connectivity across the Borough for walking and cycling - therefore decreasing car use for shorter journeys; increasing the numbers of people cycling to work and school; and increasing access to recreation and open space opportunities for residents. Improving the bridleway network and equestrian access provision , in partnership with the Essex Bridleways Association is particularly key for recreation & leisure.  This will then additionally help well-being, wildlife; and air quality.
3.2	Innovate sustainable travel options for commuters travelling to key travel Gateways eg. Rail stations; and in particular attractive cycle routes between West Horndon, Dunton Garden Suburb and Brentwood Enterprise Park, setting new standards that can be rolled out to other commuter destinations. Sustainable Urban Drainage Systems should be used on all new routes in line with the Brentwood Surface Water Management Plan.	A positive high impact outcome of this GI Strategy would be to develop new step by step programmes and projects that bring many GI health, wellbeing, play and social benefits directly into the daily routines of large numbers of Brentwood residents / workers / children - simply by the innovative organisation of travel hubs, (Gateways).



## 4. Promote and develop outdoor sport, recreation, play, art, heritage & education

## **EXISTING REPORTS, STRATEGIES, & TERMINOLOGY**

The Brentwood Open Space Strategy 2008-2018 concludes that, "Presently, Brentwood has a portfolio of what can only be described as 'good' open spaces, but they have the potential and the infrastructure to be 'excellent' open spaces if the investment both in time and money is made." The Brentwood Survey and Assessment of Needs of Open Space, Sport, and Recreation Facilities highlights deficiencies of provision and makes recommendations for new amenity, play, allotment, and semi natural areas; and highlights existing open spaces that need upgrading and/or improved access to ensure use if maximised.

## **AIMS**

- S1 Protect and enhance facilities for sport, recreation art, heritage, and play
- S2 Provide opportunities to learn about nature and the environment
- S3 Engage local people in the design, improvement, & maintenance of locally important green spaces. Provide exciting and adventurous play and recreation opportunities for children, adults, and fami-
- S4 lies. To support healthy development & well being, and accessible to all social groups.
- S5 Value and support informal rural recreation on public rights of way and bridleways.

There is a clear Borough wide need for adventurous play and teenage play. Brentwood also has 3 Historic Parks and Gardens; 12 Scheduled Monuments; and 636 Archaeological find sites.

### POTENTIAL FOR IMPROVEMENT

Overall Brentwood is a very green Borough, with a high provision of sports clubs, and most people being within driving distance to it's many country parks. However there are some local deficiencies in childrens play, in particular excellent play spaces for older children, that are accessible to them without need for parents to take them there by car.

### **BRENTWOOD'S OPEN SPACE VISION:**

To ensure a linked and integrated network of inviting and sustainable open spaces which together contribute towards quality of life for the residents of Brentwood and which underpin the Borough's unique identity, and to ensure that open spaces aid in the protection, enhancement and promotion of the natural environment, bio-diversity and cultural heritage of these areas .'

**Brentwood Open Space Strategy 2008-2018** 





## 4. Promote and develop outdoor sport, recreation, play, art, heritage & education

	KEY RECOMMENDATIONS	REASON						
4.1	Secure several new Adventurous Play and Recreational facilities: some natural and informal play; some Go Ape or similar; some skate park style facilities as led by young people; and some through supporting existing clubs to engage better with teenagers and young people eg The Scouts and uniformed associations; existing sports clubs in Brentwood.	To support healthy physical, emotional and social development; independence & well being.; and love of nature and the outdoors. Enabling young people to have freedom enjoying the outdoors is key to helping sustain and support Green Infrastructure in the long term.						
4.2	Designate local green spaces through the Plan to help secure sports facilities and school playing fields in the longer term	Many sports grounds could be at risk of development if not protected leaving rural communities with even fewer communal green spaces.						
4.3	Develop separate Arts; Sports; Play; Heritage; and Education themes within the Masterplanning of the Brentwood Greenways Project; working with relevant local clubs, stakeholders, partners, and businesses to build local consensus and ownership of the process, and project	A Brentwood Greenways Project backed up with a Greenways Officer, or Green Infrastructure Delivery Officer to lead it, can be a positive force for GI improvements that can engage and benefit all interest groups, stakeholders, businesses and communities, and generate new partnerships and funding too, as well as real GI projects on the ground.						





## 5. Create an economically useful and productive landscape

## **EXISTING REPORTS, STRATEGIES, & TERMINOLOGY**

Brentwood's landscape is productive in many ways including arable fields; grazing; forestry; and energy production for example venting gas from former landfill sites feeding electricity into the National Grid.

### **ANALYSIS & AIMS**

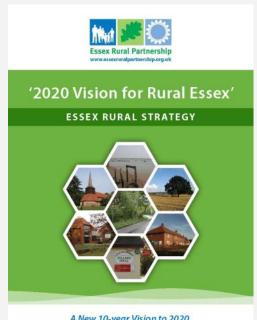
- F1 Support initiatives for maintaining and enhancing the farming sector.
- F2 Promote initiatives that expand local food production.
- F3 Support initiatives for expanding skills in managing green infrastructure and renewable energies.

## POTENTIAL FOR IMPROVEMENT

Supporting agriculture and the rural economy is also key to the identity of Brentwood; and new connections can be built between the farming community and the urban communities around the theme of local food production. Projects to support and maximise the accessibility of allotment and community food growing should also be developed to bring all the GI benefits of this including well being, wildlife, and social cohesion to greater numbers of people.

Proposals from the Essex Rural Strategy are included on the following page as these also are seen as supporting green infrastructure in Brentwood.

It is rightly perceived that those living in rural areas are surrounded by countryside, but often overlooked that access to the countryside and to green space may be more restricted than in urban areas. Country parks and dedicated areas for recreation are a requirement in urban planning; in rural areas a small village green (where ball games are often prohibited!) may be the only accessible green space for local residents.



A New 10-year Vision to 2020, with a 5-year Strategy for 2010-2015

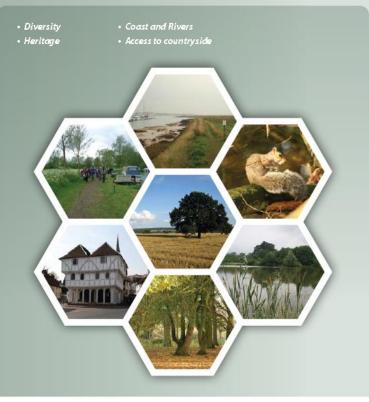


## 5. Create an economically useful and productive landscape

	KEY RECOMMENDATIONS (Taken from the Essex Rural Strategy as relates to Brentwood GI)	REASON				
5.1	<ul> <li>Supporting a Thriving Economy</li> <li>Encourage a wide range of successful business and commercial activities taking place in rural Brentwood. As well as more traditional rural businesses, they should also include innovative and research based enterprise in particular focussing on renewable and green energy.</li> <li>Encourage high employment where public transport and cycling infrastructure will support low commuter car use.</li> </ul>	Food production, arable, livestock, and other farming businesses are a major essential asset of Essex. They are activities that also create a landscape suitable for tourism and visitors, health and recreation.  Supporting businesses reliant on Brentwood's landscape, and taking full advantage of Brentwood's strategic location, can build future local distinctiveness and landscape character, if well planned and managed as part of a co-ordinated Strategy to build Essex's "sense of place" as distinct from The Cotswolds; the Fens; Dorset etc.				
5.2	<ul> <li>Supporting a Rich and Varied Environment</li> <li>Support those Agri-environment Schemes and other Incentives which pay landowners to protect and improve biodiversity, geodiversity, and heritage diversity, alongside the production of good quality food and local produce.</li> <li>Support local projects to improve green infrastructure, biodiversity, geodiversity and heritage interest.</li> <li>Support green tourism trails including cycle hire and conversion of redundant buildings which benefit rural communities.</li> <li>Promote information about and access to rural green space, rural incentives and rural improvements relating to specific selected rural initiatives.</li> <li>Support the introduction of Shoreline and Catchment Management Plans and assist those landowners who are facing up to the changes brought about by rising sea levels and changing climate.</li> <li>Supports initiatives which encourage local people and visitors to see or buy local food, local crafts, water saving, green power generation, reused and sustainable buildings etc.</li> </ul>	<ul> <li>It is crucial that we retain the diversity which is threatened by massive development pressure and changing agricultural methods. It is important to respect landowner's wishes and find ways to encourage these landowners to look after and be proud of the diversity for which they are stewards.</li> <li>Essex has a reasonable network of public footpaths, green lanes and bridleways. However, in rural areas people have relatively poor access to any green space of any size, e.g. village greens, playing fields, community woodlands, allotments etc.</li> <li>There is a lack of awareness, compared with other areas of the UK, of the beauty and importance of the countryside and coast of Essex both in the Essex population and potential tourists</li> <li>Essex has rising sea levels, increased storminess and limited resources to maintain flood defences. Decisions are going to have to be made about where flood defences can be retained and where they will be realigned.</li> <li>As in many counties, there is a relatively slow take up of more sustainable life styles in Essex and this is particularly the case in rural Essex, e.g. local power generation, local food to reduce food miles, reduction of waste at source, improvements to public transport.</li> </ul>				

## 5. Create an economically useful and productive landscape

## A Rich and Varied Environment



The importance of good land management of the rural landscape should be understood by both residents and visitors. Rural communities should be proud of local initiatives, local produce and the rich diversity of wildlife and heritage which contribute to a sustainable future.

The Essex Rural Strategy's Rich and Varied Environment chapter highlights proposals and initiatives that the rural community feel are important to creating a rich and varied environment. In general these are very much in line with creating multi-functional green infrastructure for the whole of Brentwood Borough, and should be supported and encouraged.

## What Needs to Happen

- ERP will support those Agri-environment Schemes and other Incentives which pay landowners to protect and improve biodiversity, geodiversity, and heritage diversity, alongside the production of good quality food and local produce.
- ERP will encourage the establishment of a County Records Centre in Essex covering biodiversity and geodiversity as well as heritage interest.
- ERP supports local projects to improve green infrastructure, biodiversity, geodiversity and heritage interest.
- ERP will support green tourism trails including cycle hire and conversion of redundant buildings which benefit rural communities.
- ERP will promote information about and access to rural green space, rural incentives and rural improvements relating to specific selected rural initiatives.
- ERP will support the introduction of Shoreline and Catchment Management Plans and will seek to assist those landowners who are facing up to the changes brought about by rising sea levels and changing climate.
- ERP supports initiatives which encourage local people and visitors to see or buy local food, local crafts, water saving, green power generation, reused and sustainable buildings etc.



## 6. Minimise the impact of and adapt to the effects of climate change

## **EXISTING REPORTS, STRATEGIES, & TERMINOLOGY**

Brentwood Scoping and Outline Water Cycle Study 2011 identifies the Borough as lying within an area of Serious Water Stress. Having a semi-arid climate and succession of dry winters, has led to groundwater levels within Brentwood being susceptible to multi-season droughts. The quality of the Borough's watercourses is generally poor, while sewerage infrastructure in the north of the Borough is operating at full capacity. Policy CP14 in the Preferred Options Report, BBC addresses this issue in sustainability requirements for new development.

### **ANALYSIS & AIMS**

"Local Plans should take account of climate change over the longer term, including factors such as flood risk, coastal change, water supply and changes to biodiversity and landscape. New development should be planned to avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure." NPPF, 2012

- C1 Reduce greenhouse gas emissions and minimise the use of resources
- C2 Minimise the risk of flooding and pollution
- C3 Provide for species adaptation.

## POTENTIAL FOR IMPROVEMENT

Within the Green Infrastructure Key Opportunity Sites there is room to accommodate more woodland to help improve air quality and take carbon out of the atmosphere; while of course bringing other GI benefits including biodiversity, recreation, and character for example. Stability of long term management of the rural areas will play a key role in help to plan and managing flood risk by preserving hedgerows, woodland, and water courses.

Borough-wide it is crucial to ensure that there is **no increase in surface water run-off** - through insisting on permeable paving in new developments; and managing surface water run off on site wherever possible through reed beds and other GI features.



## 6. Minimise the impact of and adapt to the effects of climate change

	KEY RECOMMENDATIONS	REASON
6.1	WATER CONSERVATION & RESILIENCE TO CLIMATE CHANGE  To Chair, and be accountable to a Steering Group of key partners, Stakeholders, (including the Environment Agency), and Members overseeing that Brentwood's large blocks of natural open spaces and rural ecosystems are thriving and improving - playing their role in ensuring the Borough is resilient to Climate Change and delivering to the maximum in terms of multifunctional GI in all 6 functions.	Management and <b>partnership working</b> are essential in ensuring that Brentwood is resilient and well adapted to climate change.



## 5. MOVING FORWARD - NEXT STEPS

## Conclusions:

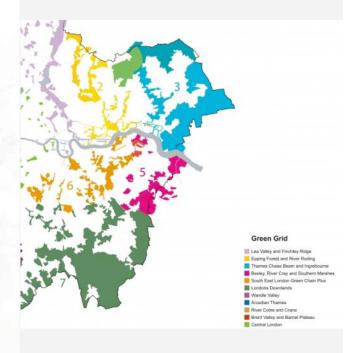
Having examined the Brentwood green infrastructure in terms of the 6 functions it plays, as well as experiencing the additional greater impact of the quality of Green Infrastructure as a whole; it is apparent what a rich; strong; relatively intact; and high quality green infrastructure resource Brentwood has.

Recommendations on the following pages are borne out of the approach of understanding and building on the more unique elements of the Brentwood landscape eg. Beautiful rural byways; to structure an even stronger, more valued, improved and more multifunctional structure to the **whole** of Brentwood green infrastructure which innovatively brings greater benefits, resilience and protection to this amazing resource.

Brentwood is now at a pivotal point in whether or not to seize the opportunity to maximise the possible GI contribution from Strategic Growth Options; to lead the way in green travel; and to develop a GREENWAY Masterplan to be ready to capitalise on development opportunities for the new smaller pocket parks, play, allotment, and amenity and semi-natural sites recommended by the Open Space Needs Assessment.

The opportunities to lead the way in this area - through carefully building the right partnerships; strategic masterplanning and designs; and resourcing strategies - is immense and exciting ...

The following table and plan indicates the possibilities.



### All London Green Grid Area Frameworks

These will deliver London's Green Infrastructure. No 3 (blue) is the Thames Chase Beam and Ingrebourne area which abuts Brentwood Borough. This programme has many GI projects on the shelf which are awaiting funding.



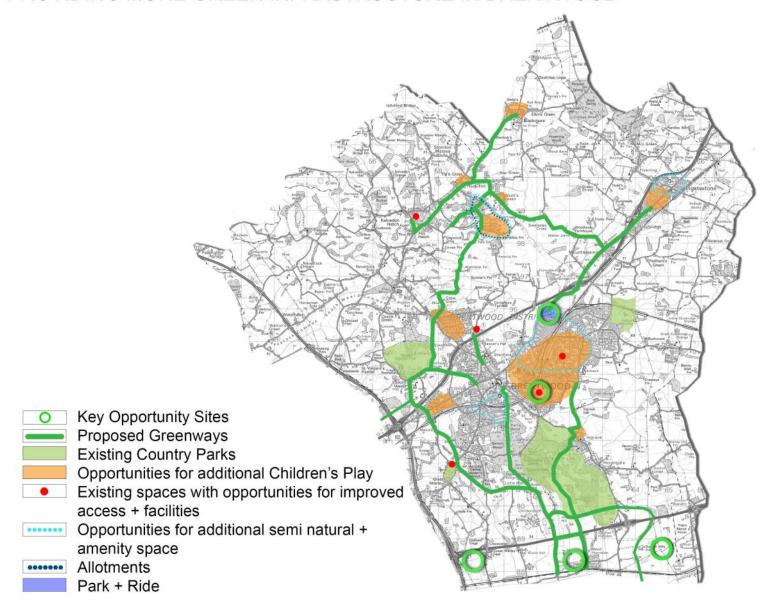
## **GROUNDWORK RECOMMENDATIONS**

## PROVIDING MORE MULTI-FUNCTIONAL GREENSPACE IN BRENTWOOD

HOW	E			EXISTING GI CONTRIBUTION						ENTIA	L GI	CON	TRIBU	NOIT	KEY PARTNERS & ACTIONS
KEY OPPORTUNITY SITES  Where Strategic projects could be managed to bring about significant improvement in at least 5 GI functions		Landscape	Wildlife	Access	Sport	Food	Climate Change		Landscape	Wildlife	Access	Sport	Food	Climate Change	
Dunton Garden Suburb*	٨	۸ed	Low	Low	Low	Med	Med	F	High	Med	High	Med	Med	High	*Or other current new development site
Brentwood Enterprise Park	L	ow I	Low	Low	Low	Low	Med	^	Med	Med	High	Med	Med	Med	Thames Chase Forest, Essex Wildlife Trust
Thriftwood Scout Camp	٨	۸ed	Low	Med	Low	Low	Low	^	Med	Med	High	Med	Med	Med	Scouts
BRENTWOOD GREENWAYS  Green Corridor network: off road Greenways; Quiet Lanes; & Bridleways. With nodes / gateways linked to existing accessible multi-functional GI & those proposed.	٨	Med I	Low	Med	Low	Low	Med	ŀ	High	High	High	High	Med	High	Utilise Landscape designers / or a new GI Delivery Officer to create the BRENTWOOD GREENWAYS Project a network of green corridors, Quiet Lanes, and bridleways between the GI KO SITES & settlements, work, school, leisure & heritage destinations. To comprise wildlife improvements & other planting; improved green travel; design quality and character; integrated recreational potential, art, allotments, heritage, and townscape improvements. Fundraising element to the role too.
BOROUGH WIDE															Improve private gardens & grounds for wildlife Insist on permeable paving and SUDS schemes



## PROVIDING MORE GREEN INFRASTRUCTURE IN BRENTWOOD





## Next steps:

There are many ways to move forward with this Green Infrastructure Strategy. Indeed this report is just the first stage of the longer term GI work that will be a developing work theme with many outputs. Some key next steps though - are listed below:

## UPDATING THIS GI STRATEGY IN LINE WITH RELATED ONGOING WORK EG:

- Into Open Space and Sport
- A Landscape Assessment
- Review of Protected Lanes

### LOCAL DEVELOPMENT PLAN

The work involved in getting to this point is already shaping policy development for the Brentwood Local Development Plan. One area has been work on understanding how the term Green Infrastructure is an over reaching 'umbrella' term; encompassing previous terms which have majored primarily on one (or more) functions of Gl. It is the Council's policy to ensure that appropriate Gl policies are included within the draft Local Plan.

## AGREEING THE PROCESS FOR IMPLEMENTING AND MONITORING THE GI STRATEGY

Ensuring that there is a well supported structure in place for delivering the GI Strategy and leading on delivery of an Action Plan will be key part of the success of this Strategy. As well as involving a multiagency Steering Group, and also embracing local concerns a key short term aim would be make progress on the Green Corridors. These can strengthen local distinctiveness in Brentwood - connecting the settlement centres and enabling cycling, walking, and movement of wildlife. Higher quality GI in this form could then enable future sustainable development without loss to overall amenity, character, or quality of life in the Borough.



## **Policy Context**

## **European Guidance**

EU Water Framework Directive, European Union, 2006 <u>ec.europa.eu/environment/water/waterframework</u>: establishes a framework to protect rivers, lakes and groundwater so that all aquatic ecosystems and, for their water needs, terrestrial ecosystems and wetlands meet 'good status' by 2015. A requirement is to establish a river basin management plan for each river basin district.

### **National Guidance**

National Planning Policy Framework, DCLG, 2012 www.dclg.gov.uk aims to protect and enhance valued landscapes and soils from new development and minimise the impacts on biodiversity, where possible providing net gains. It seeks to establish coherent, ecological networks that are more resilient to current and future pressures while recognising the 'wider benefits' ecosystems services can have. Green Food Conclusions, DEFRA, 2012 www.defra.gov.uk: identifies the challenges facing the food system and the relationships between them to help determine how to improve the environment and increase food production in England. Sport England Active People Survey 2012 www.sportengland.org: summarises the participation rates for different sports for each local authority area. Biodiversity 2020: A Strategy for England's wildlife and ecosystem services, DEFRA, 2011 www.defra.gov.uk: sets out the UK's biodiversity policy for the next decade on land, rivers and lakes. It seeks to deliver a real step change to halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people. UK National Ecosystem Assessment, DEFRA, 2011 www.defra.gov.uk: provides a comprehensive account of how the natural world, including its biodiversity and its services. It shows that nature is consistently undervalued in decision-making and that many of the services we get from nature are in decline. Understanding Place: Conservation Area Designation, Appraisal and Management, English Heritage, 2011 www.english-heritage.org.uk: provides guidance on the importance and content of conservation area appraisals and management plans. Understanding the Importance of Retaining Good Quality Parks and Green Spaces and the Contribution They Make to Improving People's Lives, Green Link, 2011 www.green-space.org.uk: outlines the benefits open spaces bring, including the cost effective benefits green space has for health and well-being and for increasing community involvement in volunteering. The Future of Food and Farming, Government Office for Science, 2011 www.bis.gov.uk: explores the pressures on the global food system between now and 2050. It identifies measures that need to be taken by different partners today and in the future to ensure that the rising population can be fed sustainably and equitably. Urban Green Nation: Building the Evidence Base, CABE Space, 2010 www.designcouncil.org.uk: gauges the state of England's urban green space and its impact on people's health and well-being. The Natural Choice: Securing the Value of Nature, DEFRA, 2010 www.defra.gov.uk: recognises that an interconnected natural system can promote 'sustained economic growth, prospering communities and personal wellbeing'. An integrated landscape-scale approach to delivery is encouraged, using local partnerships where possible. Making Space for Nature: A Review of England's Wildlife Sites and Ecological Network, DEFRA, 2010 www.defra.gov.uk: states that the UK's biodiversity network is fragmented and in decline. It aims to re-establish the diversity, function and resilience of biodiversity and ecosystems in a self sustaining network. It emphasises the value functioning ecosystems and their services can bring to the environment and wellbeing. The Case for Trees in Development and the Urban Environment, Forestry Commission, 2010 www.forestry.gov.uk: emphasises the value trees, particularly as part of good development. It aims to inspire people and organisations to get involved in planning their local green environment. Helping Community Groups to Improve Public Spaces, CABE Space, 2009 www.designcouncil.org.uk: encourages local authorities to make better use of local people in the management and maintenance of their local spaces in the future. Community Led Spaces, CABE Space, 2010 www.designcouncil.org.uk: identifies the benefits that community run spaces can bring to local people and Councils. It highlights different approaches to transferring management and maintenance responsibilities to the community. Green Infrastructure Guidance, Natural England, 2009 www.naturalengland.org.uk: promotes the delivery of a network of 'more, bigger, better and joined up' wildlife sites to create effective green infrastructure that can contribute to the recovery of biodiversity and help people value and conserve their local green environment. Quality green infrastructure in and around the urban area is seen as creating quality places where people want to live and work. Countryside Character: North East, Natural England, 2002 www.naturalengland.org.uk: uses statistical analysis and landscape assessments to identify those elements that influence the countryside and describes how the landscape reflects this.



## **Sub Regional Guidance**

East of England Plan, 2008, revoked 2013; Mid Essex Landscape Character Assessment, 2006 Essex Biodiversity Action Plan 2010-20 Essex Local Transport Plan, 2011 Shaping the Future Community Strategy for Essex, ECC, 2003 Sporting Lives, Sporting Futures, Sporting Partnerships – A Physical Education and Sports Development Strategy for Essex, 2007 Analysis of Accessible Natural Greenspace Provision for Essex, Natural England, Essex Wildlife Trust, 2009 The South Essex Catchment Flood Management Plan, Essex Rural Strategy, 2010 - 2015 Essex Cycling Strategy, 2013 ECC Sustainable Drainage Systems 2012

## **Local Guidance**

Brentwood Strategic Flood Risk Assessment SFRA, 2010 Bentwood Borough Local Plan 2015-2030: Preferred Options (emerging) and Brentwood Strategic Growth Options, BBC, 2015 Brentwood Local Wildlife Sites Review, 2012 Infrastructure Delivery Plan, 2014, Survey and Assessment of Needs and Audit of Open Space, Sport and Recreation Facilities in Brentwood Borough, PMP, 2007 Brentwood Play Area Strategy 2007-2010 Brentwood Scoping and Outline Water Cycle Study 2011 Havering Green Infrastructure Strategy, 2015

