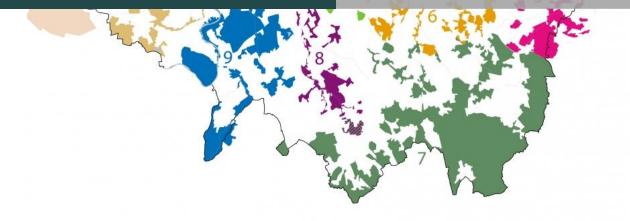


GREEN INFRASTRUCTURE EXPLAINED



**CPRE London - May 2013** 

This short guide is an introduction for CPRE London members and local groups to managing green infrastructure in London. It covers:

What is green infrastructure? Why is it important for London? What can you do? Resources

# What is green infrastructure?

The formal definition of green infrastructure is:

"Green Infrastructure (GI) is a strategically planned and delivered network of high quality green spaces and other environmental features. It should be designed and managed as a multifunctional resource capable of delivering a wide range of environmental and quality of life benefits for local communities. Green Infrastructure includes parks, open spaces, playing fields, woodlands, allotments and private gardens" (Natural England, 2013).

What does this mean in practice? Green infrastructure is a broad concept, delivering multiple services and describing different types of living and water-based landscapes on a variety of scales (see table below).

Scale	Туре
Local, neighbourhood scale	Street trees, verges and hedges Green roofs and walls (also called 'living' roofs and walls) Pocket parks and gardens (public and private) Local rights of way, pedestrian and cycle routes and verges Allotments, orchards, church yards, cemeteries and burial grounds Public and private open spaces and squares Village greens and commons, market gardens Ponds, streams Small woodlands Rain gardens and other vegetated sustainable urban drainage systems (SuDS) School grounds and sports pitches Brownfield sites Car parks (landscaped or semi-derelict)
Town, city, district	Business and public squares and plazas Metropolitan, district and royal parks e.g. Greenwich, Hyde and Richmond parks Urban canals Municipal open spaces & commons e.g. Hampstead Heath & Burgess Park Golf courses Forest and country parks Waterfronts, reservoirs, lakes, rivers and floodplains Community woodlands Agricultural land Industrial parks
City region, regional and national	Regional parks & national parks 'historic designed landscape' e.g. Lee and Wandle Valleys Areas of Outstanding Natural Beauty, Area of Great Landscape Value, National Scenic Area Shoreline, River, Canals and floodplains Long distance trails Forests, woodland and community forests Verges along road and rail networks Common lands and open countryside

#### Green infrastructure types

Adapted from Landscape Institute, 2009

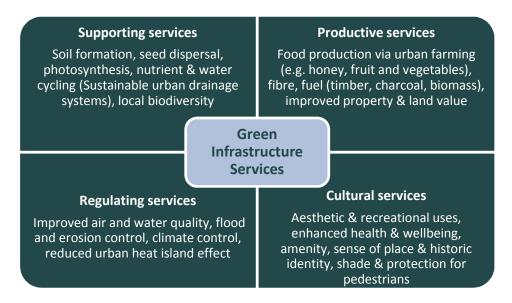
# Greening London - Why is it important?

Inherent in the concept of sustainability is that society and economy are dependent on environmental support systems (local, regional and global). This relationship is not always clearly captured in decision-making and planning.



Sustainable development lens seen through Earth's life support system (Griggs et al, 2013)

Investing in green infrastructure targets a whole range of 'Ecosystem services' which produce positive environmental, social and economic outcomes. Green Infrastructure makes real and long-term economic sense when you start to consider the 'Total Economic Value' that it contributes to a local area. A European study of the regional benefits of green infrastructure for the city of Bruges estimated that, over a twenty year horizon and reflecting factors such as increased wages and jobs, GI contributed a total economic value of  $\xi$ 5.6 million i.e. circa £4.82 million to the local economy (DG Env, 2012). Another study by Imperial College looked at the value of ecosystem services provided by Greater London's Green Belt. They estimated that lowland heath contributed '£5,000' worth of services per hectare, semi-natural woodland £9,000 per hectare; agricultural land and golf courses around £1,000 per hectare (Tahara, 2010).



There is clear policy and legislation in London and nationally to protect and enhance green infrastructure. Alongside UK habitat, wildlife and planning legislation there are three principal planning policies for London

relating to Green infrastructure: the National Policy Planning Framework; London Plan; and All London Green Grid Supplementary Planning Guidance. These are summarised in the table below:

### Green infrastructure law and policies

Legislation & planning policy	Key GI references
All London Green Grid, Supplementary Planning Guidance (2012)	Aims to promote green infrastructure, establishing a multi-functional network of green spaces and waterways, delivered by boroughs, developers, and communities.
National Planning Policy Framework (2011)	Core principles and chapters including: Protecting green belt land (ch.9); Conserving & enhancing the natural environment (ch.11).
The London Plan (GLA 2011)	The Mayor has set a target to increase green cover across central London by 5% by 2030 and 10% by 2050, as stated in the 2011 London Plan. Specific planning policies promoting green infrastructure and urban greening measures across London include: Green Infrastructure – the network of Green and Open Spaces (Policy 2.18); Urban Greening (Policy 5.10); Green Roofs and Development Site Environs (Policy 5.11); the Green Belt (Policy 7.16), Metropolitan Open Land (Policy 7.17), and borough-level open space & nature conservation sites (Policies 7.18); access to nature (Policy 7.19).
The Localism Act (2011)	Makes various amendments to town and country planning law, including, the <b>Community Infrastructure Levy</b> ; authorisation of nationally significant infrastructure projects; regeneration in London – this abolished the London Development Agency and resulted in a revised <b>London Plan</b> . The Act creates a new right for charitable trusts and others to apply to councils to carry out local services. It gives new rights and powers to communities to shape local development by coming together to prepare <b>neighbourhood plans</b> . It also introduces a 'Duty to Cooperate' across Local Authority boundaries, promoting a landscape approach.
The Conservation of Habitats and Species Regulations (2010)	Updates English law supporting the EC Habitats and Birds Directives (2000) which established the 'Natura 2000' EU-wide network of nature conservation sites, comprising <b>Special Areas of Conservation (SACs</b> , for habitats and wildlife) and <b>Special Protection Areas (SPAs</b> , for bird species), as well as Marine Natura 2000 sites. It also supports delivery of various international conventions, including on: the Conservation of European Wildlife and Natural Habitats (Bern, 1982); the Conservation of Migratory Species of Wild Animals (Bonn, 1985); Biological Diversity (UK ratified in 1994); Wetlands of International Importance (Ramsar 1971).
The Commons Act (2006) and Natural Environment White Paper (2009)	Local communities can apply for formal <b>Local Green Space</b> designation (e.g. village and town greens) through the planning system. It is awarded if communities can show evidence of continual and active use of an area of green and open space over a number of years.
The Countryside and Rights of Way Act (2000)	Clarifies procedure and purpose of designating <b>Areas of Outstanding Natural Beauty</b> (AONBs) and improves provisions for the protection and management of <b>Sites of Special Scientific interest (SSSIs</b> ).
The Wildlife and Countryside Act (1981)	Sanctuary Areas were amended to Areas of Special Protection (ASPs). It establishes Limestone Pavement Orders affording statutory protection for limestone pavements. Sites of Special Scientific Interest (SSSI) are given statutory protection as best examples of flora, fauna, geological or physiographical features.
Countryside Act (1968)	<b>Country Parks</b> are statutorily declared and managed by local authorities in England and Wales under the Act.
The National Parks and Access to the Countryside Act (1949)	Designates Areas of Outstanding Natural Beauty (AONBs). Local Nature Reserves (LNRs) can be declared by local authorities after consultation with relevant statutory nature conservation agencies.
World Heritage Convention (1972)	<b>World Heritage Sites</b> are designated for globally important cultural or natural interest. Natural properties may be terrestrial or marine areas.

Adapted from JNCC (2013) and Natural England (2013)

The All London Green Grid (ALGG) Supplementary Planning Guidance outlines specific policy to support linking green spaces into corridors, adopting an approach that has already been successfully applied in East London. The ALGG objectives are to:

Adapt to climate change & promote urban greening	Promote sustainable design, management &
Increase access to open space	maintenance
Increase access to nature, to conserve & enhance	Enhance green space & infrastructure skills
biodiversity	Promote sustainable food production
Improve sustainable travel connections	Improve air quality and soundscapes
Promote healthy living	Improve the quality of and access to the Greenbelt and
Conserve & enhance heritage features and landscape	the urban fringe
character	Conserve and enhance the Thames, its tributaries and
Enhance distinctive destinations & boost visitor	riverside spaces
economy	

At a smaller scale, the Mayor of London's Pocket Parks Programme is also aiming to deliver 100 new or enhanced pocket parks across the city by March 2015. Between 2008 and 2012 the Mayor planted 10,000 street trees through his Street Tree Programme and is aiming to plant a further 10,000 new trees again by 2015.Various community groups and charities across London actively support our green spaces, from tree planting to urban farming. For example, <u>Capital Growth</u> – a London-wide initiative to develop 2,012 food-growing places - estimates that nearly 100,000 people are already involved in community food growing on Capital Growth spaces.

#### London Green Belt – Key facts

- **History:** 1926 CPRE proposes a 'farming belt' around London; 1938 Act of Parliament finances London Metropolitan green belt; 1944 - CPRE founder Patrick Abercrombie includes the green belt in his Greater London Plan; 1955 – the government establishes a policy inviting local authorities to create green belts; 2011 – The National Policy Planning Framework calls for protecting the green belt
- **Size:** It is the largest of England's 14 Green Belts, covering 30% of the total area of all Green Belt in England, 484,173 hectares (3.7% of total land area of England).
- **Development pressure:** This Green Belt is the most under pressure of any from proposals for new development, in terms of infrastructure such as airports and transmission lines, and new housing.
- Landscape: Landscape quality is maintained in 55% of the area. 92% of the Metropolitan Green Belt land is undeveloped; 58% of the land is registered as being in agricultural use. Woodland (18% of the overall land area). Particular landscape strengths are the condition of trees/woodland and of rivers.
- **Special status:** 119,561 ha (24%) is designated as Areas of Outstanding Natural Beauty. (Overall AONBs cover 2,064,684 ha, or 15.8% of England). Three AONBs the Chilterns, Kent Downs and Surrey Hills overlap with areas covered by the Metropolitan Green Belt.
- **Nature conservation:** 24,995 ha is Site of Special Scientific Interest (5% of the Green Belt area and 2.3% of UK SSSIs). There are an additional 2,571 ha of Local Nature Reserves.
- **Public access and recreation**: 20m of public rights of way per hectare (ha) and 14,944 ha of open access land. 6,475 ha of Country Parks (1.3% of overall area). 17,724 ha is Registered (historic) Park and Garden (3.7% of overall area). The London Loop path provides a long distance walk linking the green belt to urban areas and transport routes.

Source: CPRE and Natural England (2010)

# Case Study 1: Capital rich in biodiversity

'Living Landscapes' are important not only in rural areas but also for the abundant wildlife they can support in our towns and cities. London has much biodiversity to celebrate and enhance. To the east lie <u>Rainham</u> <u>Marshes</u> the last remaining tract of grazing marsh in London; the downlands of south London support rare butterflies and chalk-loving plants which were the inspiration for <u>Charles Darwin's</u> scientific discoveries; <u>Epping</u> <u>Forest</u> and other ancient woodlands in North London provide important green lungs for the city. In west London Richmond, Bushy, Hampton Parks and the <u>London Wetland Centre</u> provide world-renown wildlife havens. These, along with the River Thames and hundreds of other green spaces, private and public gardens,

and even roadside verges provide habitats for a variety of flora and fauna, giving us contact with the natural world even in the busiest parts of the city.

Over 1,400 sites across London are officially recognised as being of value to wildlife. These are identified as <u>Sites of Importance for Nature</u> <u>Conservation</u> (SINCs) through the land-use planning process in London Boroughs, e.g. West Norwood Cemetery in Lambeth. Most sites are managed by London Boroughs but some by organisations such as the London Wildlife Trust.

Links

- GLA Biodiversity Page: <u>www.london.gov.uk/priorities/environment/greening</u> <u>-london/biodiversity</u>
- Greenspace Information for Greater London mapping London's wildlife: www.gigl.org.uk
- London Wildlife Trust: <u>www.wildlondon.org.uk</u>



Isabella Plantations, Richmond Park

### Case Study 2: Landscape thinking - 2012 legacy in the East End and Lower Lee Valley

The East London Green Grid is a network of multi-functional and high quality green spaces, connecting town centres, public transport hubs, the Thames, major employment and residential areas. 'Design for London' started the scheme in 2007, with the aim of supporting the sustainable regeneration of East London as part of the 2012 Games legacy. East London is divided into six 'Green Grids', each with a plan. Partners include the East London boroughs, Thames Gateway London Partnership, Environment Agency and Natural England. The East London Green Grid manages diverse landscapes across administrative boundaries, supporting better connections between the areas where people live and work, public transport, the green belt and the Thames. It also aims to help communities adapt to climate change. Landscape thinking is embedded throughout and it is linked to a wide range of stakeholder interests and activities, area frameworks and projects.

The Lower Lee Valley is one of the six East London green grid areas. Much of it was designated a 'regional park' since 1965 Act of Parliament. The Olympic Park Legacy Company (OPLC) sought to bring together and enhance the environmental assets of the valley when developing the Parklands. The site was designed to contribute to managing flood risk and meet biodiversity and ecology targets by creating a species-rich habitat of at least 45 hectares. The developers used recycled aggregates and certified timbers to construct the parklands. Green infrastructure has been central to enhancing the environment for the surrounding neighbourhoods, helping stimulate opportunities for economic development and contributing to education, skills, training and job opportunities. As part of the ALGG, other regional valleys are adopting a similar approach, including the <u>Colne</u> <u>Valley</u> in the London borough of Hillingdon, the <u>Crane Valley</u> crossing Hillingdon, Hounslow and Richmond boroughs and the Wandle Valley bringing together five boroughs (Croydon, Lambeth, Merton, Sutton and Wandsworth). Organisations working in the Wandle Valley are currently seeking people's views of how it can be improved (see link below).

Links:

- East London Green Grid <u>www.london.gov.uk/thelondonplan/guides/spg\_09.jsp</u>
- Lee Valley and Finchley Ridge Area Framework www.london.gov.uk/sites/default/files/AF01%20Lee%20Valley%20and%20Finchley%20Ridge.pdf
- Landscape Institute case study <u>www.landscapeinstitute.org/casestudies/casestudy.php?id=29</u>
- Wandle Valley Green Mapping Survey <u>www.greenspacemapper.org.uk/wvrp</u>

# Case study 3: 'Eco-therapy'- Green is good for you

In 2009, CABE Space found that 95% of people thought it was very important to have green spaces near to where they live. A growing body of research is finding the positive benefits of green space to people's mental

health and wellbeing. The charity *Mind* calls this 'Eco-therapy'. One study, led by University of Exeter,

indicated 'green exercise improves both self-esteem and mood irrespective of duration, intensity, location, gender, age, and health status' (Barton and Pretty, 2010). Another assessment found the more biodiversity an urban site has the greater the wellbeing benefit (Fuller et al, 2007). Recently a UK-wide study led by Dr Mathew White, at the European Centre for the Environment and Human Health, said individuals reported less mental distress and higher life satisfaction when they were living in greener areas (BBC, 2013).

"We've found that living in an urban area with relatively high levels of green space can have a significantly positive impact on wellbeing." Dr Mathew White

The Conservation Volunteers hold 'Green Gym' events in several London Boroughs where volunteers are encouraged to enhance local parks and green spaces, and at the same improving their own health through outdoor exercise. The NHS in Camden encourages volunteers to do outdoor work at various green sites across the borough; Camden Green Gyms.



Volunteers at St Mary's Secret Garden

Winner of Hackney's Best Community Project, St Mary's Secret Garden is just one example of how urban green spaces can improve people's quality of life. A peaceful oasis in the heart of Hackney and only 0.7 acres in size, this horticultural project has been developed to create a diverse green space. There are four interlinked areas: woodland; food growing area (including vegetables and fruit); herb and sensory garden; and herbaceous borders. Organic principles are used to encourage wildlife and biodiversity within the garden. The garden is a resource for the whole community to enjoy, with community events, regular plant sales, accredited horticultural education, therapeutic sessions, volunteering, an annual flower show, and work experience for students and school children.

#### Links:

- The Conservation Volunteers London links <u>www2.tcv.org.uk/display/btcv\_london</u>
- St Mary's Secret Garden, Hackney <u>www.stmaryssecretgarden.org.uk</u>
- > Neighbourhoods Green Green spaces and housing project <u>www.neighbourhoodsgreen.org.uk</u>
- BBC (2013) Green spaces boosts wellbeing of urban dwellers, April 23 2013 news. www.bbc.co.uk/news/health-22214070

# Case Study 4: Eco-auditing and promoting resilience - London Bridge and Bankside

Climate change mitigation and adaptation measures such as Green infrastructure implementation are a requirement for national and local government under the Climate Change Act (2008). Climate change scenarios have predicted a 40% increase in peak rainfall events resulting in greater flood risk. London's Central Activities Zone is particularly vulnerable due to the high cover of grey (impermeable) surfaces causing 75% of rainfall to end up as surface water run-off.

The 'Drain London' Project was created after the 2009 London Regional Flood Risk Appraisal identified surface water flooding as a major concern. Funded through the UK Department for Environment, Farming & Rural Affairs, Drain London is part the GLA-led '*Greening the BIDs*' project that aims to catalyse the installation of small-scale GI in central London. Drain London involves London boroughs, the Environment Agency (EA), Thames Water and others to actively promote Sustainable Drainage Systems (SuDS) in addressing surface water flood risk. SuDS includes a mix of interventions, such as green roofs, rain gardens and filter strips, to provide more natural ways of managing surface water run-off than conventional drainage systems. They mimic natural drainage processes and help to reduce the amount and rate of surface water leaving a site. The site characteristics must be carefully considered to ensure the future

sustainability of the adopted drainage system, but if planned properly from the outset, SuDS need not cost any more than conventional drainage schemes. As a lead Local Flood Authority and as part of Drain London the London Borough of Southwark has prepared a Surface Water Management Plan to better understand the effects of surface water flooding. This included a green infrastructure audit by the Better Bankside Business Improvement District identified potential sites for vegetated SuDS and over 13 ha of flat roof space viable for greening - 14% of the total land area assessed. The audit found an arc-shaped zone from Blackfriars Road along Southwark Street towards Borough High Street as the main area of surface water flooding within the London Bridge and Bankside Area. It is important to also note that managing green and 'blue' infrastructure through 'water sensitive' design has wider benefits, not just in relation to climate adaptation but also to issues like managing water consumption, water affordability, healthy water courses, and urban liveability (CIRIA, 2013)

Links:

- The Drain London Project: <u>www.london.gov.uk/drain-london</u>
- Screening the BIDs: www.london.gov.uk/priorities/environment/greening-london/urban-greening/greening-bids
- Better Bankside (Mayor of London, 2012): <a href="http://www.london.gov.uk/sites/default/files/Better%20Bankside.pdf">www.london.gov.uk/sites/default/files/Better%20Bankside.pdf</a>
- UK Rain Garden Guide: <u>www.raingardens.info</u>
- The Community For Sustainable Drainage: <u>www.susdrain.org</u>

# What can you do?

### 1. Track local development and green spaces

London is often cited as one of the best capitals in the world in terms of access to green spaces but the pressure to fill these precious spaces is growing, as demand for housing and new infrastructure increases. English Heritage estimates that of 150 registered parks in London 14 sites are at risk, including a number of C19 cemeteries e.g. Abney Park grade II, Kensall Green grade I, West Norwood, Grade II; Commonwealth Institute garden, grade II and other public parks (English Heritage, 2012). Vegetated cover (lawn, trees and other vegetation) from private gardens covers an estimated 22,000 hectares (14% of London's land area). However, an average garden area equivalent to 2.5 Hyde Parks is lost every year to hard surfacing and housing developments (London Wildlife Trust, GIGL, GLA, 2010). Along with public green space we also need to help defend these multi-functional private green areas.

- Neighbour extensions: The government's new <u>permitted development rights</u> make it easier for domestic and commercial properties to extend without prior planning permission but they also require neighbours to be consulted over new extensions – so its important to make your views heard.
- Mapping wildlife and greenspace: Websites like Greenspace Information for Greater London (<u>www.gigl.org.uk</u>) invite you to record wildlife sightings and Green Space Mapper are looking for people to report on their local green spaces (<u>www.greenspacemapper.org.uk/wvrp</u>)

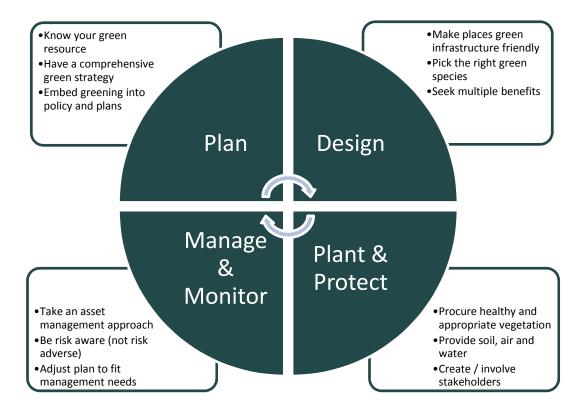
### 2. Protect and create new green spaces

Using The Commons Act (2006) you can seek formal 'Town or Village green' status for local green spaces. The Growth and Infrastructure Act (2013) prevents this in cases where green space is subject to draft/adopted new development plans or planning permission. The Localism Act provides local community groups with new tools to influence green space at the neighbourhood level, e.g. the designation as 'Assets of Community Value'. Details about establishing a Neighbourhood Forum and Plan can be found online in the CPRE guide (see 'Resources' section below). The National Housing Federation 'Neighbourhoods Green' project recognises the importance of green spaces for people living in social housing. They have developed ten principles for green space:

- 1. Commit to quality
- 2. Involve residents
- 3. Know the bigger picture
- 4. Make the best use of funding
- 5. Design for local people

- 6. Develop training and skills
- 7. Maintain high standards
- 8. Make places feel safe
- 9. Promote healthy living
- 10. Prepare for climate change

The 'Trees Design and Action Group' have developed a guide for planners and designers with advice for effective planning, design and installation of trees into an urban context. CPRE London recommends the consideration of these principles when planning for new green infrastructure in a local area. The following diagram summarises their approach:



### 3. Influence London Borough plans

We need to monitor local developments to ensure we are not losing further green spaces. We can also send our views to local developers and councils to ensure they adopt a clear and consistent approach to protecting and supporting local and regional green spaces and infrastructure. Many boroughs are currently revising their local planning policies to account for the new National Planning Policy Framework (NPPF) and revised London Plan. Residents can comment on these policies and keep track of new developments through their council's websites or by visiting their offices. CPRE London recommends that residents encourage the adoption of the following principles in their council's local plans as well as neighbourhood plans:

- Consistent policy on green infrastructure London Boroughs should adopt a consistent policy approach, protecting existing green assets and identifying opportunities to increase Green infrastructure (GI) investment in local plans and development documents, as an opportunity to significantly enhance local and surrounding areas. GI can be applied in terms of connecting up green spaces, installation and management of park and green areas, tree planting and management, promoting SuDS, and in relation to the built environment. Such policy helps to ensure GI is built into developer's Master Plans, tying GI into buildings, paths, cycleways and public open spaces. The Community Infrastructure Levy should also support investment in local greening (Woodland Trust, 2013).
- Linking neighbourhood and borough plans to London-wide green network encourage local Green Infrastructure to connect with wider London green spaces and corridors, in accordance with the London Plan Policy 2.18 on Green and Open Spaces, as well as in the Supplementary Planning Guidance for 'The All London Green Grid'.
- National Planning Policy Framework (NPPF) The NPPF's core principles include the call to "Conserve and enhance natural environment". Chapters 9 and 11 refer to protecting and improving green spaces

and supports Local Green Space designation. London councils need to ensure these are effectively incorporated into local planning and delivery on the ground (DCLG, 2012).

Monitoring and review - London Boroughs should consider requiring the <u>BREEAM Land Use and Ecology</u> <u>Assessment</u> (for non-domestic properties) and <u>Code for Sustainable Homes</u> (on domestic properties) in all relevant developments. This is to ensure the effective assessment of existing ecology and promote of enhanced ecological benefits for a particular site. Most boroughs will have 'open space' assessment and strategy - these should provide a robust basis for future planning policy and development decisions (CABE & GLA, 2009).

# Resources

#### Guides and tools

*CABE Space - A Guide to Producing Park and Green Space management Plans:* <u>www.cabe.org.uk/files/parks-and-green-space-management-plans.pdf</u>

*Open Space Strategies, a good practice guide* (CABE & GLA, 2009): <u>www.cabe.org.uk/publications/open-space-strategies</u> *How to shape where you live – a guide to neighbourhood planning* (CPRE, 2010): <u>www.cpre.org.uk/resources/housing-and-</u><u>planning/item/2689-how-to-shape-where-you-live-a-guide-to-neighbourhood-planning</u>

*Eco-therapy* – Mind's online resources: <u>www.mind.org.uk/help/ecominds/ecominds/mental\_health\_and\_the\_environment</u> *Pin Point* - Online sustainable construction hub from the Campaign for a Sustainable Built Environment: <u>GI search.</u> <u>http://pinpoint.ukgbc.org</u>

Greenspace Information for Greater London (GIGL) – wildlife and green space mapping: <u>www.gigl.org.uk</u>

*Green Infrastructure Valuation Toolkit* – ecosystem valuation tool with case studies from North West England:

www.greeninfrastructurenw.co.uk/html/index.php?page=projects&GreenInfrastructureValuationToolkit=true

*Greener Neighbourhoods - a Good Practice Guide to Green Space*. (National Housing Federation, 2012): www.neighbourhoodsgreen.org.uk/upload/public/documents/webpage/Greener-neighbourhoods-weblinks-2110.pdf

Lost in London: Adventures in the City's Wild Outdoors (Scott L. & Smith T, 2013): <u>www.amazon.co.uk/Lost-London-</u> Adventures-Citys-Outdoors/dp/1907554602

Natural England's online summary of green legislation:

www.naturalengland.org.uk/ourwork/regulation/wildlife/policyandlegislation/legislation.aspx

*Sowing the Seed - reconnecting children with nature.* London Sustainable Development Commission (2011): <a href="http://www.londonsdc.org/documents/Sowing%20the%20Seeds%20-%20Summary.pdf">www.londonsdc.org/documents/Sowing%20the%20Seeds%20-%20Summary.pdf</a>

*Trees in the Townscape – a guide for decision makers*. (Trees and Design Action group, 2012): <u>www.tdag.org.uk/trees-in-the-townscape.html</u>

Water Sensitive Urban Design – ideas for built environment practitioners (CIRIA, 2013):

www.susdrain.org/files/resources/ciria\_guidance/wsud\_ideas\_book.pdf

UK Rain Garden Guide: <u>www.raingardens.info</u>

#### Funding

Environment Agency - Flood Risk Partnership Funding, including for communities: bit.ly/Hx7tLE

The People's Heath Trust's 'Active Communities' funding programme: <u>www.peopleshealthtrust.org.uk/index.php/apply-for-funding/the-active-communities-funding-programme?dm\_i=JEZ,1BMRK,8RDTIF,4HBV9,1</u>

Metropolitan Public Gardens Association Grants: <u>www.mpga.org.uk/grants.php</u>

Mayor of London's Pocket Parks Community fund, due May / June 2013:

www.london.gov.uk/priorities/environment/greening-london/improving-londons-parks-green-spaces/pocket-parks

Community Infrastructure Levy www.planningportal.gov.uk/planning/applications/howtoapply/whattosubmit/cil

Prosperous Parks 'crowd-funding' website: <u>www.prosperousparks.com</u>

The Woodland Trust are offering free tree packs for schools, youth and community groups: <a href="http://www.woodlandtrust.org.uk/en/moretreesmoregood/free-trees/Pages/free-tree-packs.aspx">www.woodlandtrust.org.uk/en/moretreesmoregood/free-trees/Pages/free-tree-packs.aspx</a>

#### Groups

Capital Growth: <u>www.capitalgrowth.org</u>

CPRE London: <u>www.cprelondon.org.uk</u>

Dragon Finder – local events to monitor, study and conserve reptiles and amphibians: <u>www1.froglife.org/dragonfinder.aspx</u> London Bat Group: <u>www.londonbats.org.uk</u>

London Natural History Society <u>www.lnhs.org.uk</u>

London Wildlife Trust: <u>www.wildlondon.org.uk</u> London Green Spaces Friends Group: <u>e-voice.org.uk/london-friends-network</u> London Parks and Gardens Trust: <u>www.londongardenstrust.org</u> London Green Belt Council: <u>www.londongreenbeltcouncil.org.uk</u> Neighbourhoods Green – Green spaces and social housing project: <u>www.neighbourhoodsgreen.org.uk</u> Open Space Society <u>www.oss.org.uk</u> Project Dirt (London activities): <u>www.projectdirt.com/cluster/london</u> RSPB London: <u>www.rspb.org.uk/nearyou/index.aspx?c=greater+london</u>

Trees for Cities (London projects): <u>www.treesforcities.org/about-us/projects/uk-projects/london</u>

#### References

Barton, J. and Pretty, J. (2010) What is the Best Dose of Nature and Green Exercise for Improving Mental Health? A Multi-Study Analysis. Environ. Sci. Technol.2010,44,3947–3955

www.cre8tive.me.uk/JL/Dose\_of\_Nature\_ES\_T\_Barton\_Pretty\_May\_2010.pdf CPRE and Natural England (2010) *Green Belts: a greener future.* www.cpre.org.uk

DCLG (2012) National Planning Policy Framework.

www.gov.uk/government/uploads/system/uploads/attachment\_data/file/6077/2116950.pdf

DG Environment (20120) *Multi-functionality of Green Infrastructure.* Science for Environment Policy. In-Depth report. <u>ec.europa.eu/environment/integration/research/newsalert/pdf/IR3.pdf</u>

English Heritage (2013) *Heritage at Risk*. pp6 <u>www.english-heritage.org.uk/content/imported-docs/f-j/heritage-at-risk-stats-</u> 2012.pdf

Forestry Commission (2010) *Benefits of Green Infrastructure*. Report by Forest Research, DEFRA pp.20 www.forestry.gov.uk/pdf/urgp benefits of green infrastructure.pdf/\$file/urgp benefits of green infrastructure.pdf

Fuller et al (2007) *Psychological benefits of greenspace increase with biodiversity. Royal* Society, Biology Letters, vol. 3 no. 4 390-394. <u>rsbl.royalsocietypublishing.org/content/3/4/390.abstract</u>

Griggs, D. et al (2013) *Policy: Sustainable development goals for people and planet*. Nature 495, pp. 305–307 (21 March 2013) <u>www.nature.com/nature/journal/v495/n7441/full/495305a.html</u>

JNCC (2013) Protected Sites Designations. Webpage. jncc.defra.gov.uk/default.aspx?page=1527

Mayor of London (2012) 'Greening London' web pages www.london.gov.uk/priorities/environment/greening-london

Landscape Institute (2009) *Green Infrastructure: Connected and multifunctional landscapes.* www.landscapeinstitute.org/PDF/Contribute/GreenInfrastructurepositionstatement13May09.pdf

Landscape Institute (2013) *Green Infrastructure: An integrated approach to land use.* www.landscapeinstitute.org/policy/GreenInfrastructure.php

London Wildlife Trust, GIGL, Greater London Authority (2010) *London: garden city? Investigating the changing anatomy of London's private gardens, and the scale of their loss.* www.gigl.org.uk/Portals/0/Downloads/LondonGardenCity.pdf

Mayor of London (2011) *The London Plan. Spatial Development Strategy for Greater London.* www.london.gov.uk/thelondonplan

Mayor of London (2012) *Green Infrastructure and Open Environments. All London Green Grid.* Supplementary Planning Guidance. pp24-27. <u>www.london.gov.uk/publication/all-london-green-grid-spg</u>

Natural England (2013) *Queen Elizabeth Olympic Park – Natural England review of Green Infrastructure of the Olympic Parklands site* <u>learninglegacy.independent.gov.uk/publications/olympic-parklands-green-infrastructure.php</u>

Olympic Delivery Authority (2011) *Olympic Parklands and Green Infrastructure. Learning Legacy.* Peter Neal, Landscape Consultant, ODA <u>learninglegacy.independent.gov.uk/documents/pdfs/design-and-engineering-innovation/164-green-structure-dei.pdf</u>

Tahara, H. (2010) Valuation of Ecosystem Services in London Metropolitan Green Belt. Executive Summary. workspace.imperial.ac.uk/environmentalpolicy/Public/Executive%20Summaries%202009-2010/Ecological%20Management%20Option/Tahara 10 Exec%20Summary.pdf

#### Acknowledgements

We would like to thank various people for their valuable comments and inputs to the paper, including: Alma Clavin & Elizabeth Silver @CPRE London, Ben Kimpton @The Ecology Consultancy, Linden Groves @Garden History Society, Paula Yassine @St Mary's Secret Garden, Paul Miner @CPRE national office, Robert Huxford @Urban Design Group, Stephen Russell & Nicole Collomb @The Landscape Institute, Steve Cole @National Housing Federation, and Tony Burton @Centre for London.

### © CPRE London

CPRE London is a regional branch of CPRE, the landscape conservation charity - fighting for a better future for the English countryside. CPRE London campaigns for green spaces and a sustainable urban environment for London's citizens. We promote 'smart' urbanism, with an emphasis on green infrastructure, sustainable land and resource use, mixed-used, compact and inclusive communities.

Together we can save our unique and precious green spaces.



'Spring reflections', Radnor Gardens, Twickenham (c) Twickerati

CPRE London 70 Cowcross Street London EC1M 6EJ Tel: 0207 253 0300 office@cprelondon.org.uk www.cprelondon.org.uk Twitter: @cprelondon

Registered Charity number 802622

