

Briefing on Green Infrastructure in the United Kingdom

Introduction

This paper is intended for RTPI members and members of the various communities of interest groups run by the Institute. It has been compiled by members of the Green Infrastructure task group, a voluntary group of interested members who seek to further best practice on green infrastructure throughout the Institute's membership.

The paper provides a general introduction to green infrastructure and explains its relationship with planning. Due to the variance in processes the paper presents an overview of green infrastructure from an English, Scottish, Welsh, and Northern Irish perspective.

What is green infrastructure?

Green infrastructure is a phrase used to describe all green and blue spaces in and around our towns and cities. The term allows us to refer to – and consider the collective value of – **all** of these spaces at once.

Component elements of green infrastructure include parks, private gardens, agricultural fields, hedges, trees, woodland, green roofs, green walls, rivers and ponds. The term covers all land containing these features, regardless of its ownership, condition or size.

Development of the term green infrastructure

The term green infrastructure is a description of what the land is, but also reflects what the land does. The emergence of the term green infrastructure was combined with a heightened understanding of the numerous benefits to be gained from providing and maintaining a healthy green infrastructure resource; including reducing flood risk, improving psychological health & well being, boosting local economic regeneration and providing a habitat for wildlife.

In the past, green spaces have often been valued for single uses, such as for sport/recreation, or simply for their aesthetic appeal. The term green infrastructure reflects the fact that green spaces can perform a number of functions, often simultaneously. One site could be providing several functions at once, providing us with multiple benefits from one site.

The real benefit of green infrastructure to planning is that it can help deliver other local, regional and national policy objectives, not just those related to green space. The challenge is ensuring that green infrastructure is capable of providing functions which will meet numerous planning objectives; this requires thorough design, planning and management. Success is reliant on a shared understanding between developers, planners etc. of what green infrastructure is, what it can achieve and how to achieve this.

Green infrastructure in planning

Since the inception of town planning, green infrastructure has had an important role to play; with Ebenezer Howard expounding the value of the garden city and Patrick Geddes championing nature conservation at the turn of the 20th century. All land use planning impacts on, and is impacted upon by the green infrastructure. Development plans have always placed importance on green spaces in their various forms. However, in the past, green spaces have often been considered individually and the wider benefits of a green infrastructure network have been overlooked.

The continuing decline of biodiversity, credible evidence of economic gains and community support have all helped green infrastructure in rising up the agenda. Nationally bodies such as the Forestry Commission, Natural England and the Environment Agency have been championing the concept through their work¹. Many of these bodies have produced guidance documents and altered their ways of working to reflect green infrastructure practices.

With government support and recognition in all areas of the UK the importance for planners to understand and apply a green infrastructure approach has never been greater.

Green Infrastructure in England

National planning policy for England is principally contained with the [National Planning Policy Framework](#) (NPPF).

The NPPF requires local planning authorities to use the term green infrastructure. The NPPF definition of green infrastructure (p.52), states that it 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.”

In the NPPF, the onus is on local planning authorities to plan positively for strategic networks of green infrastructure (Para. 114), and take account of the benefits of green infrastructure in reducing the risks posed by climate change (Para. 99). The wider benefits of green infrastructure beyond its contribution to ecological networks and climate change adaptation are also referenced.

Even before the publication of the NPPF many local authorities were adopting a green infrastructure approach. A vast number of local planning authorities have Green Infrastructure Studies and/or Strategies within their Local Development Framework evidence base, and in the past few years there has been increasing weight given to green infrastructure in local policy plan-making.

At a regional level many Regional Spatial Strategy (RSS) documents recognised the value of green infrastructure. The North West of England RSS contained a specific green infrastructure policy; EM3 which stated that "plans, strategies, proposals and schemes should: identify, promote and deliver multi-purpose networks of green space, particularly where there is currently limited access to natural green space or where connectivity between these places is poor; and integrate green infrastructure provision within existing and new development, particularly within major development and regeneration schemes."

¹ Landscape Institute (2011) [Local Green Infrastructure: Helping Communities make the most of their Landscape](#), Natural England (2012) [Micro-Economic Benefits of Investment in the Environment Review](#)..

The recent Localism Act has introduced a new tier in the English planning system – a neighbourhood planning. This small scale tier provides new opportunities for green infrastructure planning. Neighbourhood planning is particularly concerned with greater involvement of local people in plan making. This could be particularly useful for green infrastructure planning where quality is one of the most important aspects to consider. At larger scales the issue of quality is often overlooked.

In England the benefits of green infrastructure are also championed by the ‘Green Infrastructure Partnership’, which was set up in response to the [Natural Environment White Paper](#) which calls for more, bigger, better and joined ecological networks.

Green Infrastructure in Scotland

Two concepts exist within Scotland: ‘Green Infrastructure’ and the associated concept of ‘Green Networks’. Both, although only recently introduced, are becoming increasingly important within land-use planning.

The Scottish Government guidance document: ‘[Green Infrastructure: Design and Placemaking](#)’ (2011) explains the key principles of each. Green Infrastructure refers to the ‘green’ and ‘blue’ features that exist within the natural and built environment. ‘Green networks’, broadly speaking are explicitly concerned with connectivity and the idea that more successful places are created when different elements of green infrastructure are linked together to create multi-functional green networks.

‘Connectivity’ and ‘multi-functionality’ are also core principles which are promoted more widely within [Scottish Planning Policy](#) (SPP).

Planning Policy and Advice

Planning for a broad range of green infrastructure related activity is currently encouraged by SPP which is the Scottish Government’s policy on how land use planning matters should be dealt with across the country. This includes the requirement for Local Planning Authorities to prepare Forest and Woodland strategies to inform the development plan. Green networks are encouraged across Scotland by the national policy; for example, paragraph 130 of the SPP states that:

‘Development plans should identify and promote green networks where this will add value to the provision, protection, enhancement and connectivity of open space and habitats in the city regions and in and around other towns and cities. Lochs, ponds, watercourses and wetlands also form valuable landscape features, recreational resources and wildlife habitats and should be protected and enhanced wherever possible both as part of developments and green networks.’

Work is currently ongoing to review the SPP. It is possible that content on green networks and green infrastructure will change as part of this review.

Planning Advice Notes (PANs) provide further detailed advice of relevance to green networks in planning. PAN 65 offers focussed guidance in relation to the preparation of open space audits and strategies, which Local Planning Authorities are required to undertake as part of the development plan process.

Many authorities are now using the open space audits and strategies as a fundamental starting point to help inform the development of wider green network and green infrastructure strategies and supplementary guidance.

Green Infrastructure Initiatives – The Central Scotland Green Network

The most prominent, green infrastructure initiative in Scotland is the ‘Central Scotland Green Network’, which was one of 14 National Developments included in the [National Planning Framework for Scotland 2](#) (NPF2), which was published in June 2009. The National Planning Framework sets the long-term national level spatial strategy for Scotland and takes forward the spatial aspects of the Scottish Government’s policy commitments and priorities on sustainable economic growth and climate change. There is currently a consultation on the “main issues” for inclusion in NPF3.

The aim of the Central Scotland Green Network as outlined in NPF2 is to deliver:

‘...a step change in environmental quality, woodland cover and recreational opportunities... [and to] make Central Scotland a more attractive place to live in, do business and visit; help absorb CO²; enhance biodiversity; and promote active travel and healthier life styles’.

The Central Scotland Green Network initiative spans across Central Scotland, covering 19 Local Authorities and an area of approximately 10,000km². As a priority national development it has to be considered and planned for in strategic development plans and local development plans covering the area.

Work has recently begun on the preparation of the National Planning Framework 3.

Green infrastructure in Wales

On a national basis, green infrastructure is principally planned in Wales through the Technical Advice Note (TAN) 5, which supplements ‘Planning Policy Wales’ (PPW) (2002). The ‘Living Wales’ consultation on a new natural environment framework for Wales also aims to support the understanding, valuation and provision of green infrastructure. The ‘ecosystem approach’ embodied in this new framework would allow for greater recognition of the ‘goods and services’ provided by green infrastructure and therefore may facilitate the protection or development of such infrastructure.

The Environment Agency’s Catchment Flood Management Plans and Shoreline Management Plans provide the framework for managing flood and coastal risk in Wales on a strategic scale. The water courses and coastal habitat that form part of these plans both form part of the green infrastructure network. The all-Wales coastal path also represents an example of green infrastructure on a strategic scale.

At the regional level some areas have produced Green Infrastructure Framework’s, for example, the Green Infrastructure Framework for North East Wales, Cheshire and Wirral.

In terms of a local green infrastructure case study in Wales, the Cydcoed Phase I project was a £4M, 3 year grant programme giving support and grants to communities to help them make use of woodland for community development.

Green Infrastructure in Northern Ireland

While not expressly a concept within the Northern Irish planning system, guidance on planning open space within developments is provided in [PPS 8 \(Open space, sport and recreation\)](#). This document states that open space ‘is important for its contribution to the quality of urban life by providing

important green lungs, visual breaks and wildlife habitats in built-up areas' (p7) mirroring other administrations' definition of the benefits of green infrastructure. Specific measures within this policy statement include;

- recognising the value of 'greenery' including community greenways, woodlands and landscape to health and well-being (ENV 6.4);
- creating and managing green spaces in cities, towns and villages to serve multiple purposes and contribute to distinctive local character (ENV 3.3);
- recognising the contribution which natural and semi-natural habitats can make to the character of urban spaces and promoting measures which will lead to the enhancement of biodiversity and the quality of our lives (ENV 3.3);
- preventing town cramming and seeking the provision of adequate areas of open space, playing facilities, woodland and landscaping within easy walking reach of homes, for physical activity, rest and leisure use, especially in densely populated and disadvantaged communities, and in new developments (ENV 7.1);

In addition, the Quality Initiative, established in 1996 and outlined in [PPS7](#), aims to encourage good design and quality built environments. It emphasises the importance of open space provision in new developments, acknowledging its contribution to people's health, wellbeing and quality of life.

A guidance document published in 2000 called [Creating Places: Achieving Quality in Residential Environments](#) echoes the vision of the policy statements and while arguably in need of an update, does impress upon the reader the importance of incorporating 'green' areas into design concepts.

Conclusion

Green infrastructure is a term understood by a wide range of interest groups from park rangers to developers. Acceptance of the wide range of benefits which can be gained from green infrastructure has helped to moved green spaces away from something nice to have to a critical infrastructure, vital for sustainable places.

The real benefit of green infrastructure to planning is that it can help deliver other local, regional and national policy objectives, not just those related to green space.

Each of the different areas of the UK has developed a different approach to planning for green infrastructure, it will be interesting to see how the numerous Local Planning Authorities interpret the national policy into local development documents in the coming years.

Further resources can be found on the RTPI's website :

<http://www.rtpi.org.uk/knowledge/topics/green-infrastructure/green-infrastructure-signposts/>.

If you have any questions or comments on green infrastructure planning in the UK please contact the GI task group at gitaskgroup@gmail.com.

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