Towards a Green Infrastructure Framework for Greater Manchester

September 2008

Summary Report

GREEN INFRASTRUCTURE FEASIBILITY STUDY FOR GREATER MANCHESTER – SUMMARY REPORT

ANNEXES

DRAWINGS

1 Introduction

1.1 In July 2008, Government confirmed Greater Manchester (GM) would be a New Growth Point (NGP), anticipating 67,500 new homes in the period to 2017. One condition of NGP status is the delivery of Green Infrastructure (GI).

1.2 This report summarises research carried out by TEP for the Association of Greater Manchester Authorities (AGMA) and Natural England, on the feasibility of a GI framework for GM. The study addressed the following issues:-

a. What does the term 'green infrastructure' mean for the city region?
b. Does Greater Manchester need to actively plan for GI?
c. Which GI functions does Greater Manchester need to support its growth?
d. Does GM need a cross boundary, multi-agency approach to GI?
e. Where are the priority areas for creation, conservation and enhancement of GI?
f. Are there case studies of GI being implemented in mature urban areas?
g. How can Local Development Frameworks and Core Strategies promote GI?

1.3 The study sets out a 'route map' for AGMA to develop a city regional GI framework. The study also advises on how a framework document might be structured and how delivery of GI might be enhanced.

2 A definition of green infrastructure

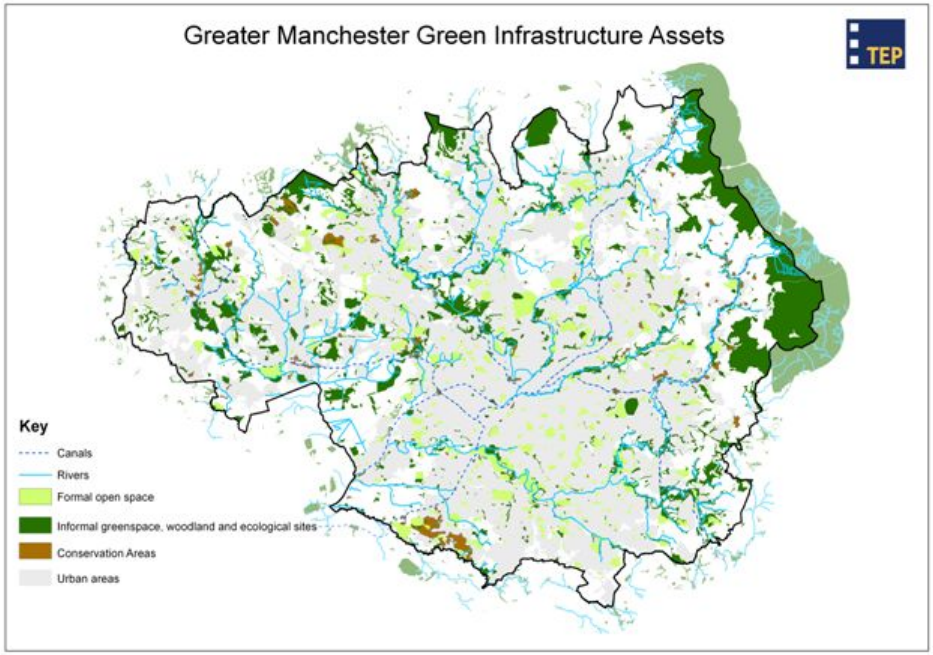
2.1 A general definition of GI is available in Regional Spatial Strategy[1]. In the context of Greater Manchester, TEP advise that GI can be defined as follows:

> The green infrastructure of Greater Manchester is part of the city-region's life support system. It is a planned and managed network of natural environmental components and green spaces that intersperse and connect our urban centres, our suburbs and our rural fringe. **In simple terms, it is our natural outdoor environment.**
>
> In Greater Manchester, green infrastructure consists of:
> - **open spaces** (parks, woodlands, informal open spaces, nature reserves, lakes, historic sites and natural elements of built conservation areas, civic spaces and plazas, and accessible countryside) (the map below illustrates the present extent of such spaces)
> - **linkages** (river corridors and canals, pathways, cycle routes and greenways).
> - **networks of "urban green"** (the collective resource of private gardens, pocket parks, street trees, verges and green roofs)

2.2 GI is delivered at various geographical scales; from neighbourhood and site specific projects up to cross-boundary environmental programmes such as the Red Rose and Pennine Edge community forests. The graphic at Annexe 1 illustrates the diversity of projects at different scales which combine to form green infrastructure.

2.3 The map illustrates the pattern of existing green infrastructure assets from local to strategic in scale; including parks, managed open spaces, woodlands, rivers, canals, Conservation Areas and ecological sites. The moorland fringes and river valleys support networks of informal and ecological

greenspace. In the inner urban areas, the rivers, canals, multi-user routes, formal parks and pocket spaces for play, amenity and recreation are the principal GI assets. The map also suggests that much urban fringe countryside (i.e. the white areas) is neither particularly accessible nor of significant biodiversity value. The GM Ecological Framework[2] also notes the importance of the collective private garden resource in sustaining urban biodiversity.



3 Does Greater Manchester need to actively plan for GI?

3.1 The study identified many reasons why GI is critical to sustain growth. It merits forward planning and investment as much as other socio-economic priorities such as health, transport, education, economic development and highway/telecomm/drainage infrastructure.

3.2 **Economic benefits** flow from environmental quality. Research by Ecotec for NWDA (see box) shows there are eleven classes of economic benefit. This includes direct benefits such as job creation in environmental and visitor economies. Indirect yet quantifiable benefits such as land value uplift and high quality place branding are relevant. There is emerging recognition of how GI reduces the economically significant risks and costs of climate change and poor workforce health.

Extract from **"The Economic Benefits of Green Infrastructure: A review of the evidence base for the economic value of investing in Green Infrastructure"** *(EcoTec, 2008, for NWDA)*

Four types of economic benefit flow from green infrastructure investments:

- Direct economic outputs.
- Indirect economic outputs.
- Cost reductions to the public and private sectors.
- The management of risk.

The eleven key economic benefits of green infrastructure are:

- Climate Change adaptation and mitigation.
- Flood alleviation and Water management.
- Quality of Place.
- Health and Well-being.
- Land and Property values.
- Economic growth and Investment.
- Labour productivity.
- Tourism.
- Recreation and Leisure.
- Land and Biodiversity.
- Products from the land.

3.3 Ecotec strongly recommends that development agencies should grasp the opportunities presented by the GI agenda for two key reasons:

- **First**, to secure maximum economic benefits by planning, managing and enhancing the region's GI, to enhance quality of place, create the best setting for home-grown and inward investment, and to develop the North West as a green and healthy region, attractive to tourists, entrepreneurs, investors and the skilled workforce necessary in today's economy.

- **Second,** to address the global issue of climate change, using GI to enable our urban and rural areas to remain resilient, habitable and economically viable as weather patterns change and to provide for greater carbon capture and storage, along with raw materials for renewable energy.

In 2006, the Mayor challenged New Yorkers to generate 10 ideas for the sustainable future of the city. The result is a sweeping plan to enhance the urban environment. Focusing on issues of land, air, water, energy and transportation, the plan has 10 initiatives, several of which relate to green infrastructure functions. The plan explicitly seeks to build homes, create clean and safe greenspaces and waterways to help attract 1 million more people into the city. This strategy will result in a net reduction of 30% in citywide carbon emissions, by enabling more sustainable lifestyles.

3.4 GI is central to **climate change action**. There are carbon storage benefits from brownfield soil restoration, from management of peaty soils in the Pennine fringe and the mosslands and from new woodland planting.

3.5 Urban living is conducive to low carbon lifestyles and GI is crucial to making our city liveable and attractive (see New York case study). GI is also a climate adaptation strategy through improving shade, reducing heat island effects and improving flood storage capacity.

3.6 GI is an imperative of **national, regional and local plans**. Safeguarding and improving environmental quality, for its intrinsic value and its public benefits, is a recurring theme in planning policy statements, regional spatial strategy, the sub-regional action plan and the New Growth Point declaration of July 2008.

3.7 Programmes such as Newlands[3], the community forests and regional parks demonstrate how **GI reverses the legacy of environmental damage** caused by unsustainable growth patterns in the 19th and 20th centuries.

3.8 GI helps deliver Greater Manchester's intended **brand** as a **green, vibrant and ambitious city** noted for the quality of life, quality of environment and quality of place. Such a brand is critical if GM is to sustain its competitiveness against other European city regions.

4 Which functions of green infrastructure are most needed?

4.1 The city region's vision is that by the year 2025, Greater Manchester will be:

- One of Europe's premier city-regions, at the forefront of the knowledge economy with outstanding commercial, cultural and creative industries;
- World class, successfully competing internationally for investment, jobs and visitors;
- An area where all people have the opportunity to participate in, and benefit from, the investment and development of their city-region;
- An area known for, and distinguished by, the quality of life enjoyed by its residents; and
- An area with GVA levels to match those of London and the South East.

"A world class city; known for quality of place, quality of environment and quality of life"

4.2 GI underpins the growth, transformation and management of the Greater Manchester expressed in the Vision. GI will help:

- ensure residents enjoy outstanding quality of life;
- care for the environment so it protects and sustains people, property and enterprise;
- create a setting for, and conditions to sustain, prosperous growth.

4.3 TEP advises that the objectives for GI in the City-Region are to fulfil eight "Growth-support" functions:

1 **Flood risk management and climate change adaptation -** Greenspaces being used to manage storm flows and free up water storage capacity in existing infrastructure to reduce risk of damage to urban property, particularly in the City centre and vulnerable urban regeneration areas Vegetation which cools and shades urban environments. Carbon being stored in soils and woodland. Integrity of wildlife corridors and distinctive landscapes adjusting to a warmer climate.

2 **An ecological framework -** Greenspaces sustaining Greater Manchester's biodiversity; forming habitat networks and wildlife "stepping-stones" valued by people.

3 **A sustainable movement network -** Multi-user routes for recreation and commuting. People-centred routes in and around regenerating inner urban areas to enable doorstep access to the natural outdoor environment. Routes from urban areas to our Pennine, Peak, Cheshire and Lancashire countryside.

4 **A sense of place -** Distinctive and vibrant civic spaces, landscapes and townscapes. Encouraging use and appreciation of the City's natural and built heritage of rivers, canals, woodlands, moorland fringes, mosslands, mills, parks and modern architecture.

5 **River and Canal Corridor Management -** Accessible waterways with improving water quality, supporting regeneration and providing opportunity for leisure, economic activity and biodiversity.

6 **Positive image and a setting for growth -** well-designed and managed public realm, speaking of the City Region's brand as a green and world-class city region.

7 **Supporting urban regeneration -** Accessible, clean, safe and high-quality green spaces that provide economic and community benefits to all sectors of our growing, diversifying and ageing population; particularly important in areas of deprivation and transformation.

8 **Community, health and enjoyment -** Greenspaces which are specifically managed to sustain communities through healthy, active lifestyles, social networking, cultural and community events

"Our green infrastructure will be sustained and strengthened by a few big actions and a thousand and one small changes"

4.4 These eight functions are of City-Regional priority, but they will be safeguarded and enhanced through numerous actions by many different agencies, mostly organised and delivered at a local level.

5 Does Greater Manchester need a cross boundary, multi-agency approach to GI?

5.1 A base level of GI activity already takes place (e.g. community forests, Groundwork Trusts, Newlands, local authorities' open-space programmes). National and regional policy (PPS12 and RSS Policy EM3) already requires each local authority to plan for GI. Local authorities appear willing to include

GI policy in Core Strategy (evidenced during an LDF Managers workshop in March 2008).

5.2 TEP considered whether an additional over-arching City-Regional approach to GI planning would be necessary and/or beneficial.

5.3 A city regional GI approach offers opportunity to build capacity for city growth and stimulate the required environmental improvements through:

- Identifying hotspots of particular social or environmental need.
- Promoting cross boundary programmes to sustain and build environmental resilience e.g. catchment wide flood management, river valley greenways, derelict land regeneration, carbon-storage.
- Strengthening the natural economy through investment in major programmes such as regional parks, canal and waterfront regeneration, visitor management in the Pennine and Peak fringes, destination parks, and environmental management across the ten local authorities.
- Improving liveability to encourage more people and businesses to settle in and near town and city centres

5.4 The study also identified an apparent shortfall in funding and delivery capacity in relation to all of eight "growth-support" functions of GI. These shortfalls could to some degree be resolved by increased co-operative working and resource-sharing, as is already evidenced by the successful community forests.

5.5 The City Regional Commissions which plan and oversee growth, housing, transport, social and economic infrastructure are obliged (under RSS Policy EM 3 and the NGP) to plan for GI. This will be a particular responsibility for the Planning and Housing and Environment Commissions.

5.6 Recognising the need for, and benefits of, a City-Regional approach to GI, the study examined five options for such an approach:

- *Laissez-faire* – leaving all GI planning and delivery to Local Authorities and existing/emerging GI deliverers
- *Advocacy-only* – a document promoting the benefits of GI but with no spatial targeting
- *Framework* – a document identifying priority areas for investment and enabling joint programmes
- *Strategy* – a framework with a focussed series of individually-owned actions, shared across several GI funding and delivery agencies
- *Plan* – an approach controlled and monitored centrally with a pot of funds against which local bids could be made.

5.7 The study concluded that a light-touch approach is needed to avoid duplication with, and frustration of, existing activity. There would, in any case, be little appetite for a centrally-controlled plan, given the political and cultural diversity of approaches to spatial planning across the 10 local authorities. After all, GI activity largely consists of the collective power of numerous local actions meeting local needs on specific sites.

5.8 However, extremely "light-touch" (laissez-faire and advocacy-only) approaches will not enable the step change in planning or delivery capacity needed to meet the challenges of fitting GI into a growing and regenerating mature urban area.

5.9 **TEP recommends that AGMA promotes a city regional framework for GI as an early action to influence spatial and infrastructure planning in the city region as a whole.** This should be formalised into a city regional strategy once the overall extent and timescale of growth is clear – say by mid 2009. This option (of formal strategy development) should be kept under review.

6 Where are the priority areas for GI conservation, enhancement and creation?

6.1 GI can help accelerate progress towards the City Region's 2025 vision by focussing local activity. The concept is of a myriad of locally rooted initiatives combining to form green infrastructure of strategic importance in line with the city's vision. **A spatial framework will highlight city regional priorities amongst a range of local possibilities. The spatial framework will transcend district boundaries.**

6.2 Since GI is multi-functional, different areas will be valuable for differing groups of functions e.g. urban river valleys are vital for flood-management, waterway, biodiversity, access, place-making and regeneration functions; while the regional parks are important for biodiversity, access and natural economy functions.

6.3 The method for mapping spatial priorities is summarised in the box. Budgetary restrictions mean that TEP's findings can only be regarded as a first step which should be refined through more detailed mapping and stakeholder review.

6.4 The following diagrams illustrate the spatial priorities for GI planning in the city region.

6.5 Four Key Diagrams illustrate where GI delivers (or could deliver) the growth-support functions of city regional priority;

- Distinctive Places
- Urban Renaissance
- Sustainable Movement
- Climate Change

6.6 The Ecological Framework (when complete in 2009) will also become a Key Diagram.

6.7 A summary diagram highlights the City-regional priority areas for GI investment. TEP recommends this as a first draft of a Spatial Framework for GI planning in Greater Manchester.

Overview of methods used for identifying spatial priorities for strategic GI in Greater Manchester.

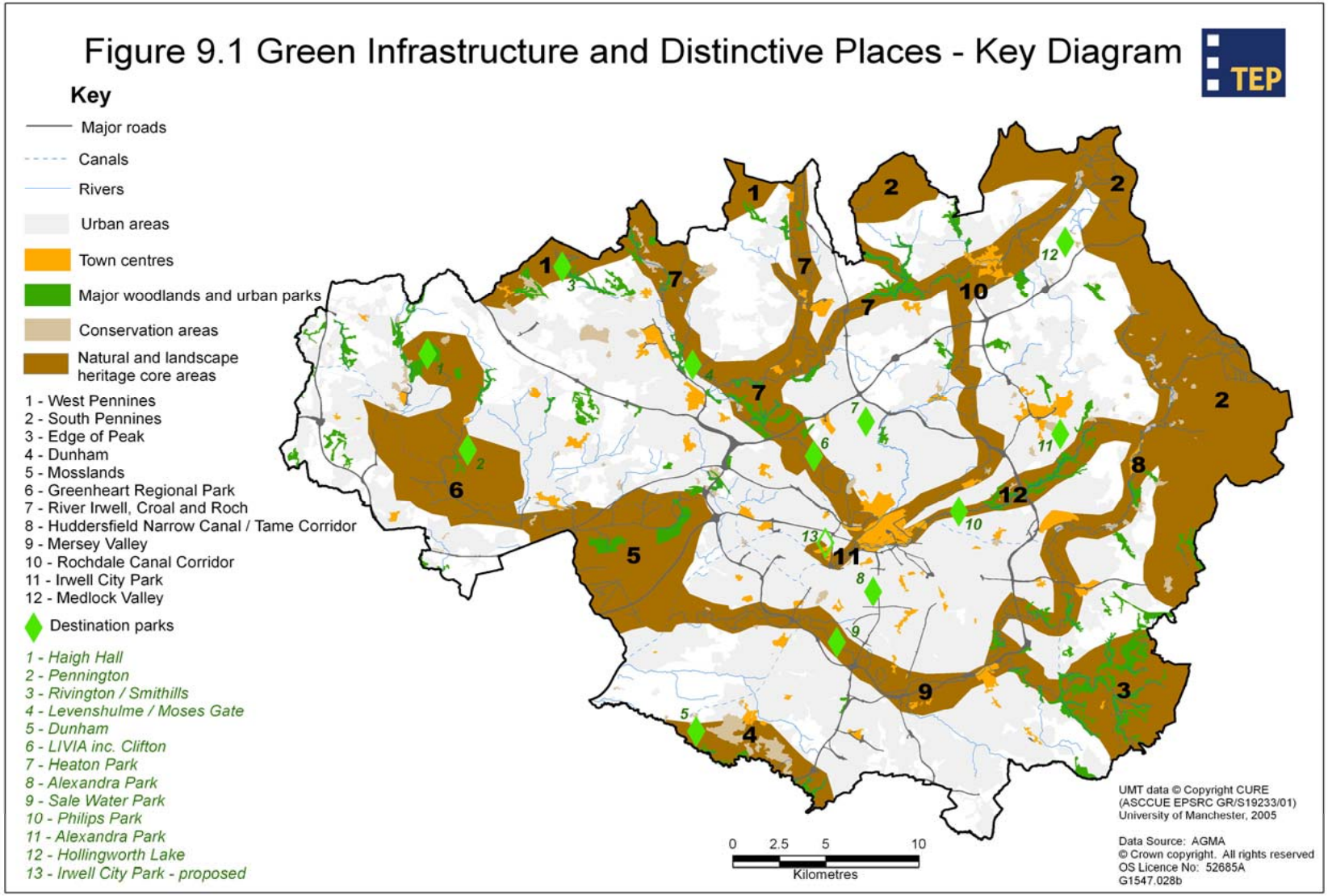
Spatial priorities must be derived from best available evidence about environmental conditions and socio-economic priorities. Spatial analytical techniques were used, using datasets assembled by Red Rose Forest and AGMA:

a) Mapping of patterns of settlement and open spaces (using urban morphology types provided by CURE).

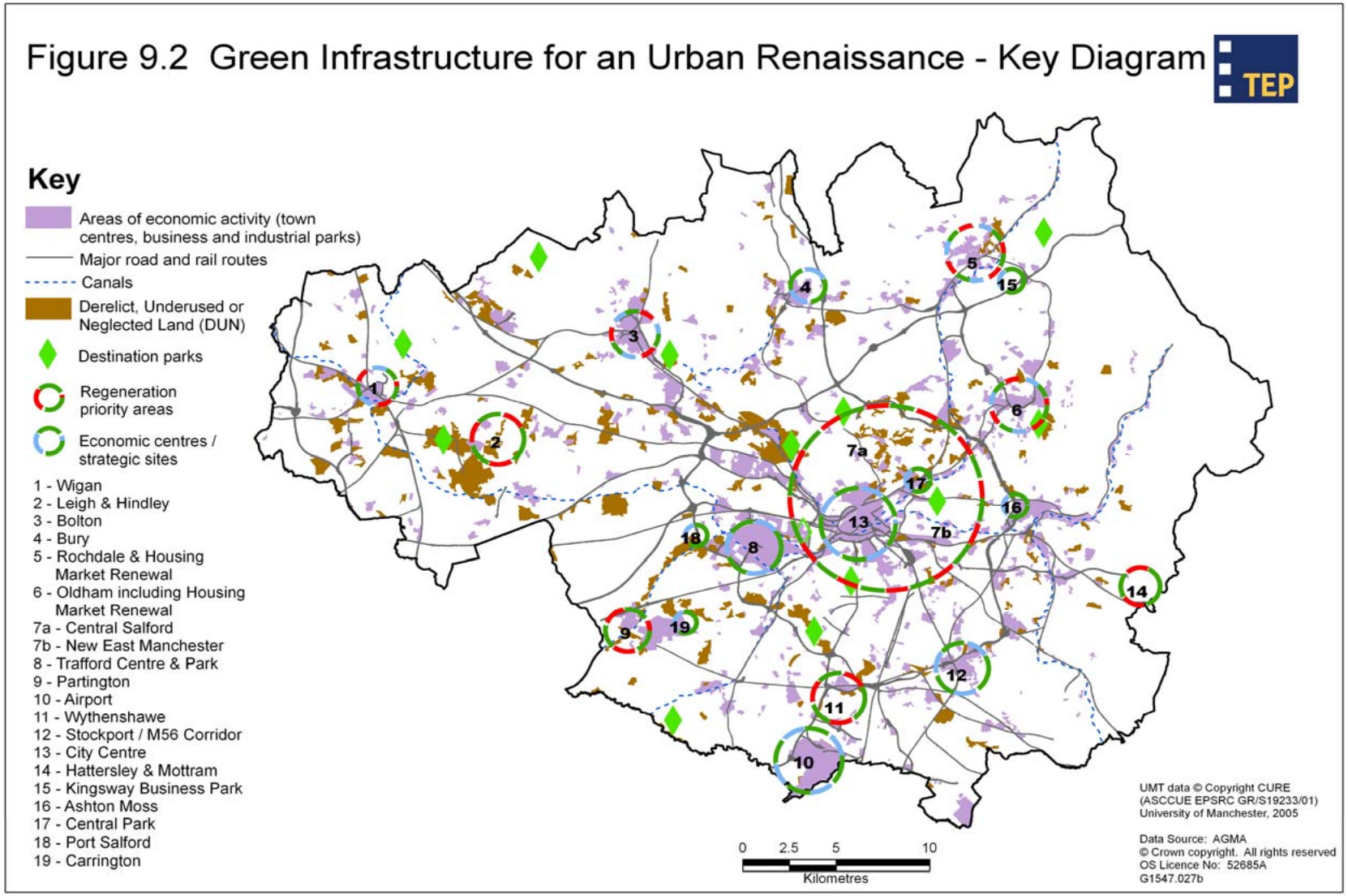
b) Mapping and characterisation of GI assets (green spaces, rivers, canals, Conservation Areas, sites of biodiversity value, landscapes of natural and cultural distinctiveness, wildlife corridors and greenways).

c) Mapping of social and demographic patterns (deprivation, economic activity, demographic trends).

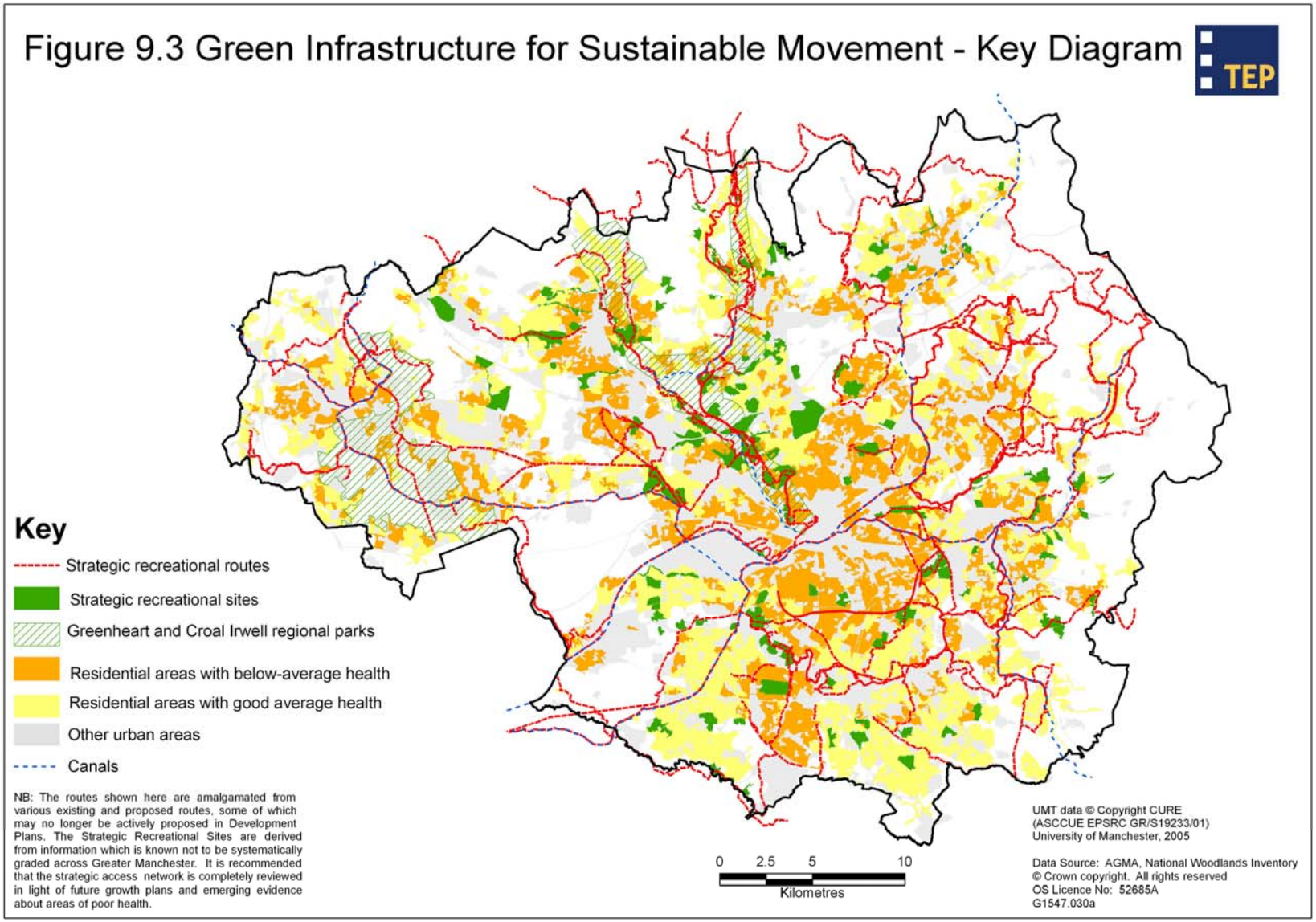
d) Consideration of where the GI functions are most needed for growth of the city region.



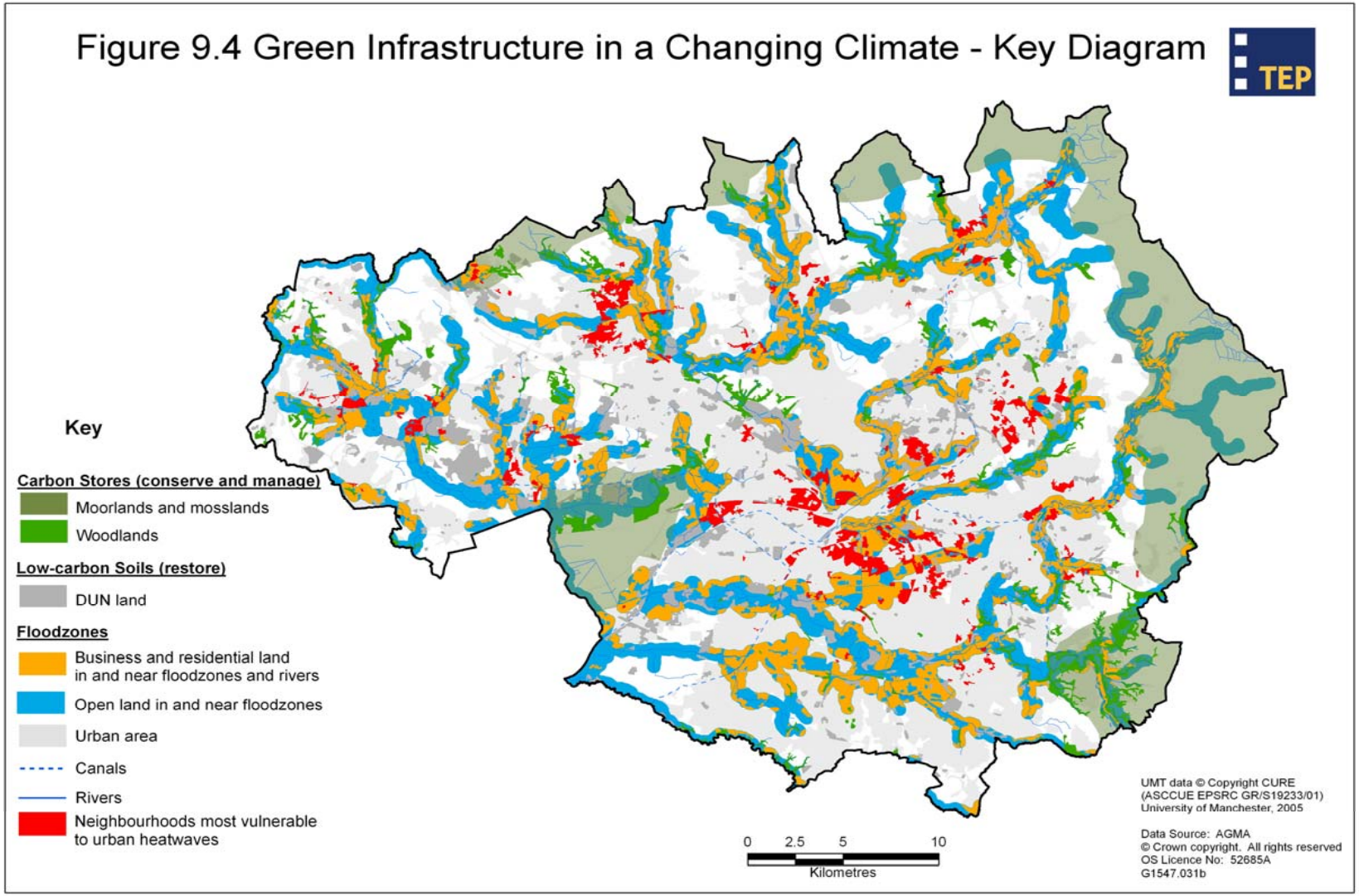
6.8 This map illustrates core areas which have greatest quality, character and/or visibility. Here GI is critical to conserving or creating a distinctive sense of place; which in turn will add to the attraction of the City Region. The Core Areas (such as the Pennine and Peak fringes, the major canals and river valleys, the Mosslands), already have many GI assets and great distinctiveness which needs to be safeguarded and promoted. GI investment is also particularly needed in town and city centres and major transport corridors to raise quality of public realm and mitigate for adverse environmental quality. The Core Areas and destination parks are mostly accessible to the public and are important for the visitor economy.



6.9 This map shows areas of greatest need and areas which are likely to undergo significant transformation in the next two decades. Regeneration priority areas have social and health needs which could, in part, be addressed through improved green infrastructure. The map also shows economic centres and strategic sites which merit top-quality public realm. Destination parks feature as economic drivers. DUN land is shown as a continuing priority for greening, due to its ongoing blight on local community cohesion, health and economic prospects, and often its visibility.



6.10 This map shows that neighbourhoods with below-average health (shown in amber) tend to be poorly provided in terms of recreational sites and routes. There is a need to review the overall provision of multi-user routes so as to provide not only middle-distance routes (such as those shown), but also close-to-home and circular routes in areas of need. There is also a need to appraise quality and quantity of recreational space in light of the impending growth.



6.11 The major carbon stores of peaty soils and woodlands merit conservation management. Broad areas of these are shown in shades of green; although in practice areas of improved mossland have lost much of their stored carbon due to past agricultural activity. DUN land (grey) has low present carbon but could be reclaimed to lock-up carbon in deeper soils and woodland planting where appropriate. The map shows (in red) communities most vulnerable to heat stress (by virtue of high-density housing and below-average health). Blue floodzones and adjoining land are open space which could reduce downstream risk through attenuation. Amber shows developed areas where GI could slow storm run-off. TEP recognises that there may be more accurate datasets which could pinpoint best stress vulnerability.

City Regional Priorities for Green Infrastructure

6.12 Based on research to date, the spatial priorities for green infrastructure at a City-Regional scale are shown in the diagram overleaf. It should be read in conjunction with the more detailed key diagram maps presented earlier. It must be subject to expert review and consultation, together with some additional evidence-collation before it can be used in a formal framework.

6.13 Some areas are critical GI to sustain city growth. The appropriate policy and strategy response will be different for each area. The plan shows the following:

- A **Green Infrastructure Network** consisting of river valleys, canal corridors, uplands, mosslands, civic spaces and major countryside resources. The network (or grid) collectively can deliver many of the growth-support functions needed for Greater Manchester such as flood-management, recreation, sport, biodiversity and community activity.

- **Major Road and Rail Corridors** which are important in defining the image of the City Region. GI can improve image and also play a role in mitigating adverse environmental quality.

- **Canals** (where not already included in the GI Network) offer opportunities for access and environmental improvements to sustain growth.

- **Economic Centres, Growth Points and Regeneration Zones** are central to the growth and regeneration strategies of the City Region. Many will experience major physical and population transformation. The GI priority is two-fold;
    - firstly to ensure access to, and management of the nearby or "upstream" GI Network;
    - secondly to ensure that new developments attain high environmental design quality in respect of new and existing open spaces, SUDS etc.

- **Destination Parks** – the major multi-functional parks.

6.14 Because of prematurity, it is not possible to accurately represent the following GI priorities:

- The Sustainable Movement Network (SMN) – a network of multi-user routes including `people-centred' and `close to home' circular routes which can facilitate a goal of ensuring all people can quickly reach the GI Network/Destination Parks/Economic Centres. Further research is needed to verify the existing status of the SMNand identify priorities for new routes.

- The Ecological Framework currently being developed by GMEU and University of Salford. Although this is not shown, TEP is confident that it will be compatible with the priorities shown on the plan.

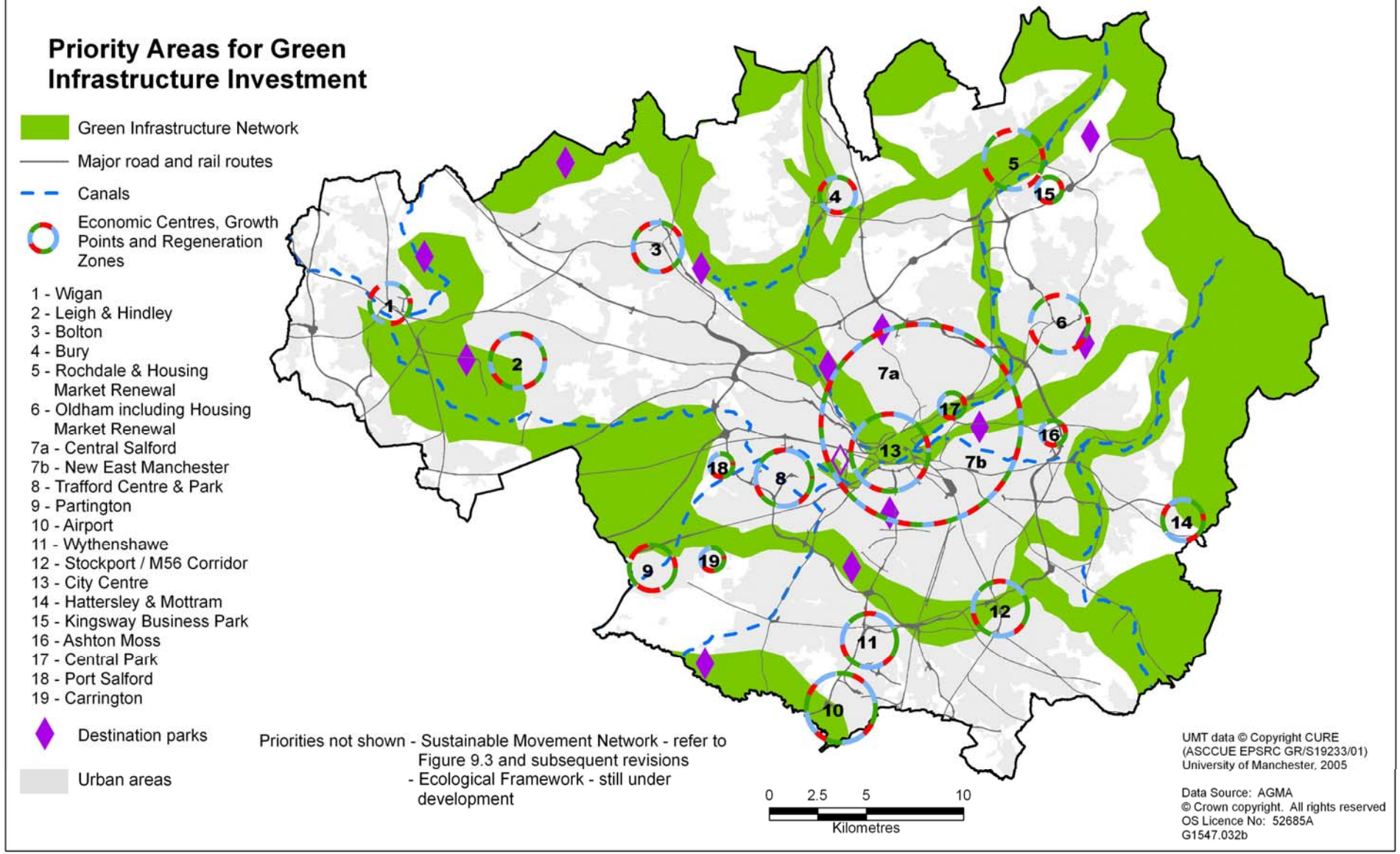
6.15 Some GI requires **safeguarding and enhanced management** e.g. the carbon-rich, distinctive and biodiverse uplands. Some GI requires **enhancement and restoration** e.g. the regional parks. In some cases, GI needs to be **made more accessible** to a wider range of people e.g. sustainable movement networks, regional and destination parks. In some cases, GI needs to be **created** e.g. NEWLANDS restoration of community woodland on derelict land.

6.16 This GI priority map responds well to the City Regional guidance in RSS, which recommends a focus on GI in and around the Regional Centre and other town centres, and in areas of major regeneration, brownfield sites, transport corridors and the Regional Parks. (Policies EM3, EM4 and MCR1)

6.17 A GI framework needs to recognise that not all priorities can be represented on a set of Key Diagrams. For example there may be compact pockets of significant deprivation or areas of environmental interest that merit investment to meet City Regional goals. Such GI priorities can be identified using criteria of strategic importance. For example Bury MBC's Core Strategy (Preferred Options) identifies GI as being strategic if it meets the following criteria;

- more than local importance;
- contributes to multiple environmental objectives;
- is linked to urban area growth/regeneration points
- has cross-boundary significance (eg is part of a wider network)
- supports city-regional or regional growth priorities

Figure 9.5 Greater Manchester - Green Infrastructure Framework to Support Growth



7 Case Studies of GI activity in regenerating urban areas.

7.1 Most recent GI strategy in the UK has focussed on Growth Areas which are often formed by new settlement of open land, where urban designers have a reasonably clean slate. The growth of Greater Manchester is constrained by the existing urban fabric, both physical and social. Case Studies of how environmental quality improvements are being implemented in similar situations were examined.

New York

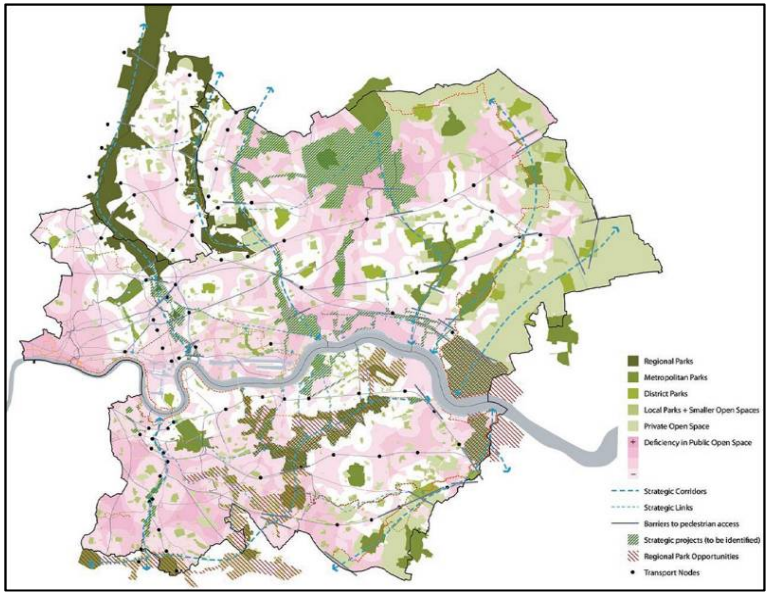
7.2 PlaNYC is an ambitious 30 year growth strategy, seeking to attract 900,000 new residents. It is branded as a carbon-reduction strategy because of the reduced per-capita emission levels of urban New Yorkers. The Plan proposes a number of GI activities to create a liveable and attractive city, including re-imagining the public realm to make it more human, extensive street-tree planting, ensuring all New Yorkers live within 10 minutes walk of a play/greenspace, completing several "destination parks" and cleaning waterways. http://www.nyc.gov/html/planyc2030/html/plan/plan.shtml

7.3 The New York Plan was derived from extensive public consultation and uses a series of highly visual topic papers covering issues such as energy, transportation and open spaces. The GI proposals form part of a suite of measures which broadly coincide with the priorities of the GM Commissions such as transport, climate change, housing. A Mayoral imperative has undoubtedly helped the NY plan to develop so thoroughly, but it is clear that there are action plans for project delivery across many neighbourhoods. There is a clear evidence base showing areas of "deficit" or "priority" for GI eg areas where there is shortfall of access to neighbourhood greenspace; or areas where public parks are inadequate.

The East London Green Grid (ELGG)

7.4 ELGG covers eleven London boroughs. It is a component of the East London Sub Regional Development Framework.[4] ELGG represents the sub regional framework for open space enhancement, identifying where stakeholders will be able to shape their policies and actions to deliver projects which build a strategic green network delivering social, economic and environmental regeneration.

7.5 An ELGG Framework[5] maps the evidence base (health, flood management, culture and townscape distinctiveness, biodiversity, deficiencies in access to greenspace and regeneration).



7.6 The Framework has Supplementary Planning Guidance[6] which advises planners and developers how they should shape their policies and actions to deliver the Grid by:

- Setting out a vision and spatial framework;
- Promoting cross boundary partnership working;
- Providing advice on delivery;
- Identifying the range of functions and benefits;
- Identifying deficiencies in the provision of public open space and in access to nature; and
- Identifying strategic open space opportunities.

7.7 A 'Primer'[7] supports the SPG by communicating in plain English the basic concepts and wider value of multi-functional strategic open space.

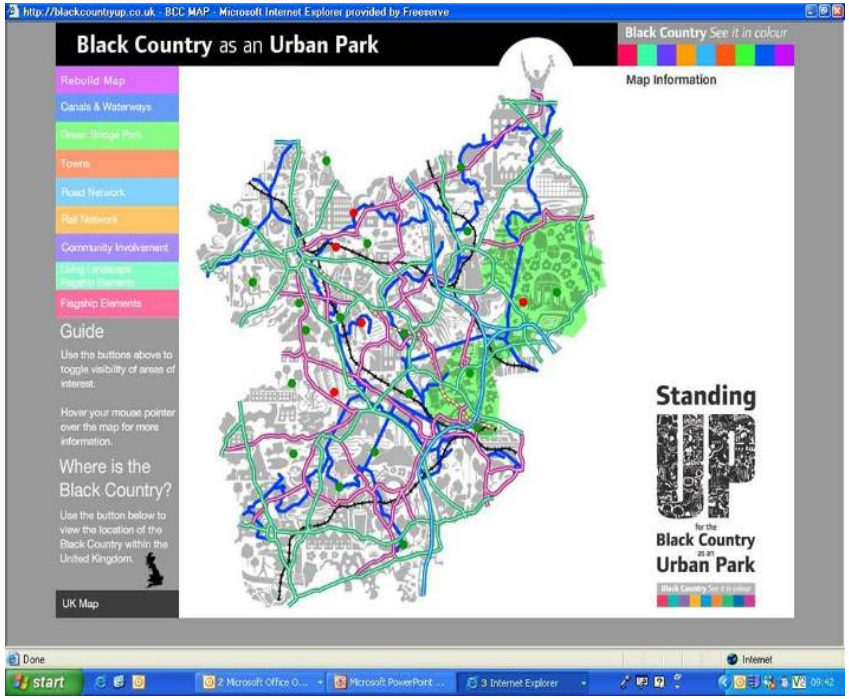
7.8 There are a number of learning points from the East London Green Grid approach:

- the suite of documents promotes strategic coordination of activity in the sub region ensuring that policies and actions contribute to the delivery of the wider GI network;
- the strong 'Primer' document clearly communicates the GI concept to a wide audience;
- There is a good evidence base through mapping of open spaces typologies, functions and deficiencies ;
- There is a Mayoral imperative to formulate GI policy - although this is not directly applicable to the Manchester City Region, a GI Coordinator and/or GI Championing Body could have a strong role in advocating GI.

Black Country Urban Park

7.9 The Black Country recognises that radical environmental transformation is needed to generate economic growth and attract people to choose to live, work and invest in the area. The concept of the Black Country as an Urban Park seeks to deliver a high quality environment by:

- Restoring the qualities that once made the Black Country great;
- Creating a powerful, unique, visual code to bind the Black Country together, while emphasising local distinctiveness;
- Connecting the hidden gems within the Black Country – such as the unique topography and hidden away open spaces; and
- Defining the culture and ethnicity of the urban centres.



7.10 The evidence base to support this is provided through the Black Country Study, which was endorsed by Government in January 2008 in the West Midlands RSS. The study functions as the principal urban renaissance strategy for the Black Country outlining priorities for regeneration of its physical, environmental, social and economic fabric. The environment element of this study covers a wide range of issues including air quality, historic environment, biodiversity, energy, canals, contaminated land, waste and recycling, water, open space and urban design.

7.11 The Black Country Urban Park is expected to form a key part of the Spatial Framework for the Black Country and may comprise the following layers: topography, beacons, corridors and communities. An Environmental Infrastructure Guide (Landscape Masterplan) will form a framework for a high quality environmental transformation.

7.12 The Urban Park concept is hosted on a website which includes an interactive map to illustrate the different components of the Urban Park and priorities within it. This allows wide conveyance of key messages. The simple and effective illustration of the concept also means that information can be easily transferred into LDFs.

7.13 The 4 constituent local authorities work together as the Black Country Consortium, and will formulate a joint Core Strategy to take account of the cross boundary and strategic nature of many of the issues affecting the sub-region, including the Urban Park. However, at the time of writing, the 4 authorities are still trying to resolve how to identify and present the GI priorities in their Core Strategies.

Examples from Greater Manchester

7.14 The River Irwell catchment drains much of east Lancashire and north Manchester, its rivers flowing through Rochdale, Salford and Manchester City Centres. 2 million people live in the Irwell catchment, with 18,500 houses in its 1:100 year floodzone. The major urban centres affected, Rochdale and Salford, are both Housing Market Renewal (HMR) Areas, experiencing high levels of multiple deprivation, with poor community health prevalent.

7.15 In January 2008, there was intense rainfall, with Rochdale recording 32mm rain in 2 hours. Two areas of green infrastructure played a part in avoiding flood damage to property.

7.16 The Littleton Road playing fields in Salford had been constructed by Environment Agency and Salford City Council to act as an emergency flood attenuation basin. Normally they host 19 football pitches and the headquarters of Manchester's Football Association. As the floodwaters rose, the Environment Agency diverted water from the River Irwell into the basin for the first time. Although several pitches were rendered unplayable for months as a result of the flooding, hundreds of downstream properties were saved from flooding. It will also have built confidence in investors and local residents that, although the HMR area is largely within floodzone, robust "green" flood defences can be effective. However, a further flood basin is needed to ensure the HMR area is fully protected to 1:100 year levels.

7.17 In Rochdale, Forestry Commission, Rochdale Council and Groundwork Trust are working together on the Belfield Urban Forest. Started in 2007, this 28 hectare, £1.7m community woodland scheme creates a clean and green river corridor from the Belfield housing estate downstream to Rochdale town centre. The Belfield project creates new woodland, greenways and wetlands to help transform the ethnically diverse but deprived area. The new greenspaces helped attenuate and store floodwaters in the January floods, meaning that the water levels in the main river as it passed through Rochdale town centre stayed 50mm below the top of the flood defences

8 Route Map for AGMA to implement a City-Regional approach to GI

8.1 TEP's report makes 10 recommendations to AGMA:

<u>Core Recommendation:</u>

- Draw up a Green Infrastructure Framework for the City Region

<u>Early-action Recommendations:</u>

- Identify an operational champion to enable and promote GI activity across the City Region.
- Promote GI policy in Local Development Frameworks.
- Secure a mandate for GI in other community, physical and regeneration strategies.
- Ensure targets for GI are adopted in Local/Multi Area Agreements and infrastructure delivery plans.

Other Recommendations:

- Publish a primer document explaining GI and creating enthusiasm.
- Audit existing delivery bodies to improve effectiveness.
- Establish a network of interested parties.
- Identify a patron to advocate GI in higher spheres of influence.
- Produce a consistent digital landuse and landcover typology for the City Region

8.2 The main report details these recommendations. The core recommendation is summarised below and detailed in an annexe to this summary report. Early actions are also summarised.

Core Recommendation: Draw up a GI Framework

8.3 A GI Framework will guide and stimulate a GI approach for the City Region. The Framework will set out the City-Regional objectives for GI. It will identify spatial and thematic priorities for GI activity – in other words, the places and projects where GI is most needed to support the sustainable growth of the City Region.

8.4 The Framework will encourage:

- existing GI initiatives to identify which City-Regional objectives they can meet;
- existing GI initiatives to consider the full range of GI's growth-support functions during project design and implementation;
- the development of new GI initiatives and programmes to meet City-Regional objectives.

8.5 The Framework will not in itself be an Action Plan, but it should provide enough detail to allow a City-Regional GI champion (see below) to facilitate existing and emerging delivery bodies in their activities.

8.6 A Framework could be drawn up in a relatively short space of time, perhaps 6-8 months. It would require some primary research to fill gaps in the spatial evidence base illustrated in this report. However, the amount of available evidence and the relatively non-controversial nature of the evidence, means that work on the Framework could commence immediately. It should be drawn up in partnership with existing GI delivery bodies and with City Regional Planning, economic development and infrastructure officer groupings. One of the City Regional Commissions should steer the drafting of the Framework.

8.7 The Framework could relatively easily be turned into a strategy document if there is a desire at City-Regional Governance level to drive environmental improvements from the top-down. This is the successful East London model, where the Mayoral support for the Green Grid has led to its adoption in a range of area-based strategies, initiatives and policies.

8.8 Annexe 2 of this summary report provides TEP's recommendation for how the Framework might be structured. The maps presented earlier in this report could, with refinement and consultation, illustrate priority areas i.e. act as the spatial aspect of the framework.

Early Action: Operational Champion

8.9 TEP recommends that AGMA champions GI planning until the City Region Commissions are fully established. Championing of GI could be carried out by the Planning and Housing Commission, or perhaps the Environment Commission.

Early Action: Promote GI Policy in Local Development Frameworks

8.10 The main report examined different approaches to GI policy and recommends the following:

a. The Core Strategy's Vision and Objectives should note how GI is a means of achieving environmental transformation, quality of life, qualify of place, climate resilience and economic growth – in short, the "growth support function" of GI should be promoted.

b. GI assets and priority areas should be highlighted in spatial portraits or descriptions – the GM-wide framework can be highlighted as evidence.

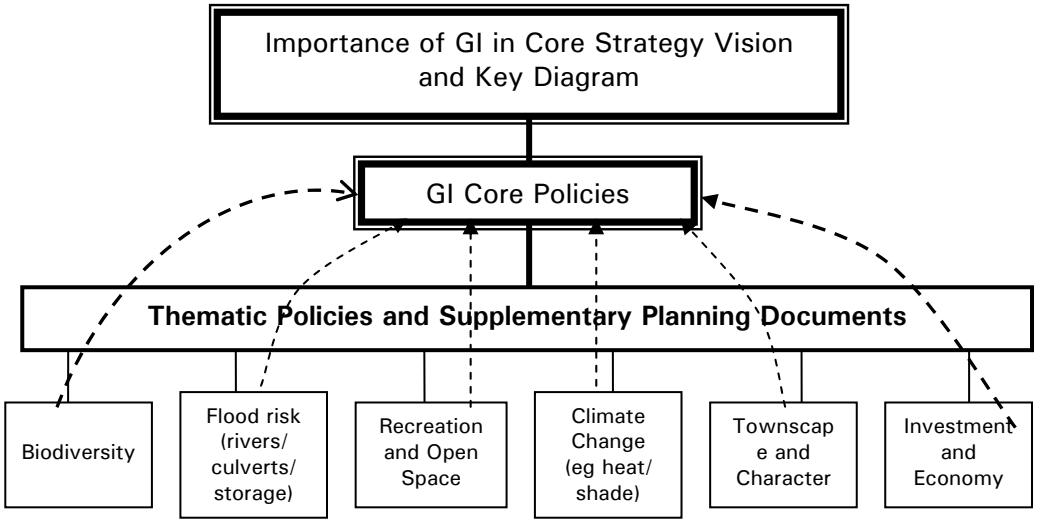
c. Core Strategy should promote GI in both spatial policy and "sustainable development principles" policy.

d. Thematic policies relating to the individual functions of GI (such as biodiversity, flood risk, climate adaption, heritage) should promote a multi-functional GI approach, referring back to the core GI policies.

e. Supplementary Planning Documents (such as the Manchester Guide to Development and Development Contributions SPD's) should provide more detail on how new developments should enhance GI assets and functions in and around the area of development. These SPDs should provide more evidence on particular deficiencies or priorities and may signpost planners onto even more detailed evidence such as PPG17 (open space) audits and biodiversity audits.

8.11 Specific GI policy can sit in the 'over-arching' section of Core Strategy; beneath which thematic policies follow and can refer back. This assists particularly in the emphasis of the multi-functionality of GI and maximising each opportunity. An action or opportunity relating to, say mitigating flood risk, can be 'cross-checked' for maximising other GI function opportunities, such as recreation and biodiversity.

8.12 This relationship between policies can result in a `virtuous circle' as is presented diagrammatically as below.

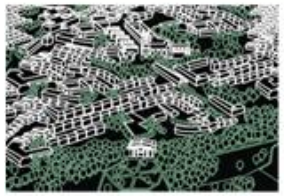


ANNEXE 1: GRAPHIC TO ILLUSTRATE HOW GREEN INFRASTRUCTURE CAN BE PLANNED AND DELIVERED AT DIFFERING SPATIAL SCALES

Green Infrastructure: from Neighbourhood to Town & City through to City-Regional and Strategic Scales

Neighbourhood Scale

A network of local green spaces addresses many user needs especially in light of urban densification, demographic changes, social inclusion; and helps to move towards a low carbon economy



- Street Trees / Home Zones
- Roof Gardens & Green Roofs
- Pocket Parks
- Gardens
- Urban Plazas
- Village Greens

- Local Rights of Way
- Dedicated Gardens / Cemeteries
- Institutional Open Spaces
- Ponds & Small Woodlands
- Play Areas
- Local Nature Reserves

Town / City Scale

District scale green infrastructure contributes to an area's distinctiveness and biodiversity, allowing a wide range of user groups to share the same space.

- City Parks
- Urban Canals & Waterways
- Green Networks
- Multi-user routes
- Urban Commons
- Forest Parks

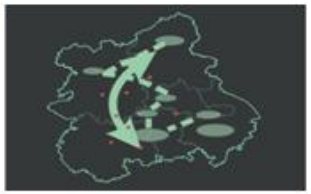
- Country Parks / Estates
- Continuous waterfront
- Municipal / Cathedral Plazas
- Lakes
- Major recreational spaces
- Landmarks & Vistas & Gateways

City Regional Scale

Including major sites and landscape tracts, as well as smaller interconnected neighbourhood and district assets, this scale of green infrastructure provision can deliver multiple ecosystem services and public benefits, such as biodiversity, landscape enhancement, recreation, health and climate change adaptation

- Regional Parks
- Rivers & floodplains
- Shoreline & Waterfront
- Strategic & Long-distance Trails
- Major (>100ha?) woodlands
- Community Forests
- Open Access Sites
- Landmarks & Vistas
- Reservoirs
- Environmental Management Initiatives
- Strategic Corridors & Gateways

Strategic Scale



- Regional Environmental Frameworks for Biodiversity, Landscape, Heritage
- Strategic River Catchment Plans
- National Trails & Destinations
- Strategic Infrastructure corridors
- Behavioural & Societal Change

ANNEXE 2: TEP'S RECOMMENDATION FOR HOW A GREEN INFRASTRUCTURE FRAMEWORK MIGHT BE STRUCTURED

PART 1: BACKGROUND

Definition of GI
This section will introduce terminology and a Greater Manchester-specific definition of GI.

The economic, social and environmental imperatives for GI
This section will describe the reasons why a GI approach is needed as the City Region accelerates its transformation into a 21st-century world class city.

The need for Greater Manchester City Regional GI Framework
This section will explain why a "do-nothing" or laissez-faire approach to GI planning will result in missed opportunities; hence the need for a City-Regional Framework. This section will also stress that a City-Regional Framework cannot substitute for local strategies and action plans. The message that the City Regions GI will be built through "a thousand small changes and a few major actions" will be reinforced.

The Place of the GI Framework in the 'family tree' of sustainable development strategies for the City Region
This section will explain how the Framework is meant to link to City-Regional strategies and action plans, and how it is meant to inform Local Development Frameworks and stimulate local and thematic actions.

PART 2: VISION AND OBJECTIVES

Vision for GI in the City Region
This section will outline a vision for the green infrastructure of the City Region. This vision is supportive of the City-Region's overall transformational vision.

Strategic Objectives for GI
This section will highlight the eight strategic objectives for the GI Framework. The terms "objective" and "function" are interchangeable.

PART 3: THE CITY-REGION'S GREEN INFRASTRUCTURE RESOURCE

Geography of the City Region
This section will summarise the physical, landscape, ecological, social and economic conditions of the City Region, emphasising the variety and distinctiveness of the area's outdoor environment and the value it has for Greater Manchester's communities, economy and biodiversity.

Challenges and Changes affecting the City-Region's green infrastructure
This section will explain the challenges, threats and changes which will affect existing GI, and will affect the way we plan for its continued benefit.

Existing Green Infrastructure Activity
This section will outline the range of existing GI initiatives, programmes and actions that are taking place across the City Region. Maps will illustrate the scope of key initiatives such as the Community Forests, Regional Parks, NEWLANDS, cross-border initiatives.

PART 4: PLANNING FOR THE CITY-REGION'S GREEN INFRASTRUCTURE ASSETS

This section will describe the City-Region's GI assets. The main report identifies five classes of asset (greenspaces and waterways, green corridors, landscapes of distinctiveness, a sustainable movement network and "urban green").

This section will also explain how some assets are of City-Regional importance, by virtue of the wide and/or strategic benefits they bring. Other assets are of more local importance. The section will suggest criteria by which City-Regional and local assets can be identified.

Maps of existing assets will be produced, and a gap analysis will show areas of deficiency. Criteria will be proposed to identify where a deficiency of GI assets is of City-Regional significance; and where it is of local significance.

PART 5: PLANNING FOR GREEN INFRASTRUCTURE FUNCTIONS

For each of the eight City-Regional objectives (functions), maps will be produced to show where the function:

- is present
- is absent
- is deficient (absent but needed)

In some cases, mapping alone is not sufficient to identify priorities for action. Sometimes this is because the mapped evidence is inadequate to make a full analysis. Sometimes this is because the function does not lend itself to mapping.

This section will make recommendations for safeguarding and enhancing each of the GI functions individually and in combination.

TEP's main report makes a first draft of this functional analysis and describes what further evidence and mapping is needed to fully identify priority areas.

PART 6: SPATIAL FRAMEWORK

This section will draw together evidence from Parts 4 and 5 to present an overall spatial framework for GI activity in the City Region. The framework will describe and illustrate priority areas for multi-functional GI planning.

Key Diagrams will illustrate priority areas; allowing the range of programmes and initiatives necessary to implement City-Regional GI to be identified.

PART 7: IMPLEMENTATION

Implementation in Spatial Plans
This section will describe how spatial plans, particularly Local Development Frameworks and supporting documents, can be used to manage development and guide GI activity to areas of City-Regional (and local) importance. Development Management policies and procedures will be discussed.

Implementation in Other City-Regional Strategies and Action Plans
This section will highlight which other documents could or should promote and deliver GI and will make recommendations for how GI activity can be encouraged.

Reinforcing existing initiatives
This section will audit existing delivery capacity in terms of the City-Regional objectives and will identify where new delivery capacity may be needed.

Partnerships and Championing
This section will propose how the Framework might become widely "owned" by partner organisations across the City Region. It will also propose how the Framework might be championed.

REFERENCES

[1] Final Draft North West RSS (March 2008) Policy EM3: Green Infrastructure
[2] Greater Manchester Ecology Unit and University of Salford – research study on behalf of AGMA, expected to report in 2009
[3] Newlands is the NWDA-funded Forestry Commission programme to create new community woodlands for socio-economic benefit. Starting in 2003, it received £23m for sites in the Mersey belt. A further £34m was granted in 2007 for work across the region.
[4] The London Plan: Sub-Regional Development Framework East London, Mayor of London, May 2006
[5] East London Green Grid Framework Report, Report of Consultants Studies, August 2005
[6] East London Green Grid Framework: London Plan (Consolidated with Alterations since 2004) Supplementary Planning Guidance, Mayor of London, February 2008
[7] The East London Green Grid Primer, Greater London Authority, November 2006