Step 1 – Requirements for Successful GI

Throughout this study, the 'lessons learnt' from each part of the study were summarised in a table at the end of each chapter. These lessons were brought together in this table, briefly explained, and reduced to key requirements if this lesson was to be followed. These requirements were then listed and subdivided according to their position in the GI planning process (see item 2 Appendix 6). This formed the basis for the GI Checklist.

Lessons learnt	From	Explanation	Requirement
The GI network comprises hubs, sites and links	Definitions; Multifunctional networks	The GI network comprises environmental and human focused hubs, sites and links. Considering the network in this way enables the concept to be quickly grasped.	The GI network should be considered and presented as hubs, sites and links
Multidisciplinary	Origins; Benefits; Northwest of England; Northamptonshire	The value of GI lies in its integration of environmental and social/economic interests. For GI to be successful, its interdisciplinary nature must be embraced and utilised in the approach taken to strategy production and delivery. Successful GI draws upon information and expertise from sectors as diverse as planners, developers, landscape architects, ecologists and health professionals.	Gather information from all relevant sources. Involve a wide range of partners, including those who would not usually be involved in one another's work areas.
Underpinned by natural processes	Origins; Benefits; Northamptonshire	All GI, no matter what the type or situation, is based around a functioning natural/semi-natural system.	Ensure GI is underpinned by an understanding of natural processes e.g. geology, hydrology, ecology.
The GI network should include a human focus	Multifunctional networks	GI in the UK as much driven by quality of life and sustainable development as ecological considerations. Therefore any network concept should include urban areas and human-focused hubs, sites and links. This allows a consideration of the interactions	Define human focused hubs, sites and links. Consider the interactions between human focused GI and environmentally focused GI and use this to inform GI priorities and delivery planning.

		between natural and human aspects of the environment which can naturally progress towards the action/delivery planning.	
Core Strategies should be informed by a GI Strategy	Making the Case	Planning Policy Statement 12 states that the Core Strategy *"should be"* informed by a GI evidence base which considers type, distribution and delivery. Other PPG/S require individual elements of GI.	Ensure GI forms part of the Core Strategy evidence base. Ensure the GI Strategy includes a delivery plan.
A delivery mechanism for sustainable development	Origins; Making the Case	Spatial planning intends to deliver sustainable development. GI integrates environmental, social and economic considerations, thereby providing a delivery mechanism for sustainable development.	Promote GI as a delivery mechanism for sustainable development. Ensure the GI process is inclusive of all relevant disciplines.
The growth agenda is a primary driver of GI	Making the Case	Areas facing significant growth have the greatest need for GI, both in terms of making this growth sustainable and as they a population centre. Areas of growth also provide the greatest opportunity for GI to be delivered by developers.	Focus efforts on locations which will be impacted by growth. Set requirements in planning policies to ensure developers deliver GI.
Ecological legislation can be used to promote or justify the GI approach	Making the Case;	The Habitats Directive and the NERC Act require LPA to conserve, restore, enhance and manage biodiversity in their planning and wider functions.	Promote GI as a means of meeting these legislative requirements. In order to meet these legislative requirements, ensure GI is underpinned by ecology.
Landscape is a cornerstone of GI	Benefits	Landscape is vital to local distinctiveness and sense of place. The landscape is a product of many of the themes of GI and as such assessing and understanding the landscape is the first step towards delivering	Ensure GI analysis draws upon Landscape Character Assessment or other relevant landscape analysis techniques.

		multifunctionality.	
Designated nature conservation sites are a critical part of the GI network but biodiversity should also be a part of everyday life	Benefits	Designated sites are a critical genetic resource but are not sufficient to maintain our biodiversity on their own. Their functioning should be enhanced through buffers and links, allowing biodiversity to spread, with the intention that it becomes a part of our everyday lives and landscapes. Biodiversity networks which are integrated with our societies will be more valued and more easily defensible.	Recognise key nature conservation sites as GI hubs. When devising the GI network be aware that stepping stones and habitat patches can function as well as direct corridors. Where a specific biodiversity output is desired, tailor the network to this purpose. Aim to integrate biodiversity with society rather than isolate it. Design the network to provide everyday contact with biodiversity.
The historic environment is an integral component of our landscape and vital to sense of place	Benefits	The visibility and integrity of the historic environment influences people's attitudes and feelings towards a place. Being informed by and working closely with the historic environment is therefore vital to creating locally distinctive places. GI provides a practical means to ensure the protection of the historic environment. Historic Landscape Characterisation provides a holistic understanding of the role of history in the landscape. Historic Environment Assessment lends itself to assessments of multifunctionality.	Use Historic Landscape Characterisation as means of gaining a holistic understanding of the role of history in the landscape. Incorporate Historic Environment Assessment into GI.
Watercourses can provide an obvious multifunctional GI link	Benefits	Watercourses are often the only semi-natural element in an urban or intensive agricultural landscape and often connect urban areas to the wider countryside. They act as wildlife	Look to watercourses as a GI opportunity. Be informed by an understanding of hydrology.

		corridors, are popular for recreation and may have historic or geological interest. GI can deliver improved water management, aiding climate change adaptation	Consider opportunities for and promote floodplain naturalisation and the use of Sustainable Drainage Systems.
GI can positively influence people's lifestyles	Benefits; Northwest	GI can help to ensure healthy lifestyle choices are designed into an area, such as provision of walking or cycling routes. Access to high quality greenspace delivers psychological and physical benefits. High quality greenspace delivers economic benefits.	Include assessments of access and recreation needs and opportunities within GI. Promote the retrofitting of greenspace in deficient areas whenever opportunities arise. Prioritise the delivery of local 'active' movement routes in urban GI. Promote circular routes which would be attractive for informal or formal Walking for Health. Require high levels and standards of greenspace within new developments, drawing upon ANGSt.
GI can reduce greenhouse gas emissions	Benefits; Northwest	Provision of cycling/walking routes can reduce emissions. GI can provide space for growing food or energy crops. Vegetation can keep buildings cool, reducing the need for air conditioning. Vegetation and ecosystems such as wetlands store carbon.	Prioritise the delivery of local non-motorised movement routes in urban GI. Provide allotments for communities to grow their own food. Promote this activity. Promote tree planting around buildings. Recognise the carbon storage value of ecosystems.
GI aids climate change	Benefits	Urban greenspace (including green roofs)	Urban greenspace should be given sufficient

adaptation		reduces urban temperatures substantially and, if delivered on a large enough scale, is effective at reducing runoff.	protection, particularly where it may come under development pressures, e.g. brownfield land. New urban greenspaces should be created where levels fall below that required to deliver the level of cooling required. This may require further investigation. Street trees and green roofs should be retrofitted where other opportunities are limited and the reduction of temperatures is a priority.
GI provides many positive economic benefits	Northwest	Natural Economy Northwest have compiled an excellent and wide-ranging evidence base which provides a very robust case for the economic value of GI. The research is primarily focused on the Northwest but does draw upon national research (e.g. by CABE). The principles of the findings will be the same across the UK.	Use potential economic benefits to justify GI. Be aware of the toolkits produced by Natural Economy Northwest and use to justify or better GI in individual projects when appropriate. Identify opportunities for GI to benefit the economy, e.g. tourist sites.
Use of GIS	Origins; Northamptonshire	GIS allows quantities of spatial information to be overlain and interrogated. The use of GIS during the GI network definition process could reduce pressures on staff time and expertise. Beyond the GI production phase, GIS can be used to effectively convey the GI message or priorities to non-experts, and allows the more detailed information which underpins the network to be readily accessed.	Judicial use of GIS Consider ongoing use of GIS as a means of presenting the GI network and making the detailed information which underpins it available.

GI priorities will vary between areas and across the GI network	Multifunctional networks; Northwest; Northamptonshire	If the GI network is to achieve all of its functions the network must connect urban, peri-urban, rural and natural areas. However, the priorities in each area will vary. GI should be tailored towards the desired outcome, with different functions brought to the fore as required. It may help to consider possible GI benefits as a series of layers which can be ordered as circumstances dictate. Both the Northwest's and Northamptonshire's approaches to GI were tailored towards the regional/county priorities.	The overall purpose of the GI network should be defined, possibly as a vision. Within each part of the GI network, possible benefits should be considered and prioritised.
There should be a logical progression from evidence gathering through to delivery	Delivery	Early stakeholder involvement is critical if GI is to achieve its potential and lack of involvement may compromise the delivery of GI. A logical progression from evidence gathering through to delivery can help to ensure all stakeholders are aware of and party to the process, helping to progress smoothly on to delivery.	Ideally the GI process should progress as follows: • Evidence gathering • Environmental Characterisation • Needs and deficiencies analysis • Definition of the GI network • Delivery plan • Informing the SCS/LAA • Feeding through into the LDF • Delivery As wide a range of stakeholders as possible should be involved in the process. In particular, stakeholders with a delivery role should be included early on.
A GI delivery plan is essential and should take	Delivery	Potential delivery mechanisms vary depending upon whether the GI is on or off	A GI delivery plan should be produced, forming part of the overall GI Strategy.

into account the different delivery options available in different situations		site, land ownership and its situation within the network. The majority of the GI network will be in private ownership and therefore voluntary agreement to undertake or refrain from certain activities will be the primary GI delivery mechanism. Stakeholder involvement is crucial to both getting voluntary agreement from landowners and ensuring soft levers and targeted appropriately. There are a variety of grants which can be put towards GI, and a partnership approach can increase the likelihood of obtaining funding.	GI delivery within development sites should be secured using standard planning measures i.e. Conditions, S106 and/or CIL. GI delivery on site should be designed into developments through masterplans. Consideration should be given to the need to guide these with Design Guides or Concept Plans. Consideration should be given to the use of a roof tax levy to raise funds for off site GI, or ongoing GI management. Soft levers such as agri-environment monies or woodland grants should be targeted towards GI priorities. Grants should be investigated as a means of delivering specific projects.
Demonstration sites can help to promote the GI concept to wider stakeholders and the general public	Northwest	Desk-based research is demonstrated on the ground by a series of case study examples. These examples are clearly focused towards a specified GI priority, e.g. climate change adaptation, helping to demonstrate its successful achievement.	Identify opportunities to deliver high profile demonstration project. Such projects could draw upon grants e.g. Big Lottery.
The long-term management of GI should be secured up front.	Delivery	The GI network requires long-term management and investment in GI should be treated as investment in grey infrastructure. Management can be the difference between	The long-term management of GI should be secured up-front. Opportunities to raise revenue from GI

		the successful achievement of desired GI benefits or not.	towards its management should be investigated.
High level support is important for successful GI	Northwest; Northamptonshire	There is clear top-down support for GI in the Northwest.	Where high level support is forthcoming, utilise this.
Clear leadership is instrumental in successful GI	Northwest; Northamptonshire	The two partnerships in the region have a clear purpose and focus and provide leadership for sub-regional/local action. The GI requirement is clearly set out in the RES and RSS, cascading down to local action, and regional government is a clear presence in the partnerships.	Establish a GI steering group to co-ordinate local action.

Shortlist for Successful GI

The requirements listed in the previous table were subdivided according to their position in the GI planning process. This formed the basis for the GI Checklist.

The Strategy Production Process

- Ideally the GI process should progress as follows:
    - Evidence gathering
    - Environmental Characterisation
    - Needs and deficiencies analysis
    - Definition of the GI network
    - Delivery plan
    - Informing the SCS/LAA
    - Feeding through into the LDF
    - Delivery

Evidence gathering

- Ensure the GI process is inclusive of all relevant disciplines.
- Gather information from all relevant sources.
- Involve a wide range of partners, including those who would not usually be involved in one another's work areas.
- Involve stakeholders whose buy-in is essential for GI delivery early on in the process.
- Establish a GI steering group to co-ordinate local action.
- Where high level support is forthcoming, take advantage of this.

Environmental characterisation and needs and deficiencies analysis

- Ensure GI analysis draws upon Landscape Character Assessment or other relevant landscape analysis techniques.
- Use Historic Landscape Characterisation as means of gaining a holistic understanding of the role of history in the landscape.
- Incorporate Historic Environment Assessment into GI.
- Ensure GI is underpinned by ecology, in order to meet legislative requirements.
- Include assessments of access and recreation needs and opportunities within GI.
- Ensure GI is underpinned by an understanding of natural processes e.g. geology, hydrology, ecology.

Defining the network

- The overall purpose of the GI network should be defined, possibly as a vision.
- The GI network should be considered and presented as hubs, sites and links.
- Define human focused hubs, sites and links.
- Recognise key nature conservation sites as GI hubs.
- Where a specific biodiversity output is desired, tailor the network to this purpose.
- When devising the GI network for biodiversity be aware that stepping stones and habitat patches can function as well as direct corridors.
- Design the network to provide everyday contact with biodiversity, aiming to integrate biodiversity with society rather than isolate it.
- Look to watercourses as a prime GI opportunity.

- Identify opportunities for GI to benefit the economy, e.g. tourist sites.
- Consider the interactions between human focused GI and environmentally focused GI and use this to inform GI priorities and delivery planning.
- Within each part of the GI network, possible benefits should be considered and prioritised.
- Judicial use of GIS to help define the network.
- Consider ongoing use of GIS as a means of presenting the GI network and making the detailed information which underpins it available.

The SCS and LAA

- Use potential economic benefits to justify GI.
- Promote GI as a means of meeting the requirements of environmental legislation.
- New urban greenspaces should be created where levels fall below that required to deliver the level of cooling required. This may require further investigation.
- Promote the retrofitting of greenspace in deficient areas whenever opportunities arise.
- Prioritise the delivery of local 'active' movement routes in urban GI.
- Consider opportunities for and promote floodplain naturalisation and the use of Sustainable Drainage Systems.
- Provide allotments for communities to grow their own food. Promote this activity.
- Promote tree planting around buildings.
- Promote circular routes which would be attractive for informal or formal Walking for Health.
- Recognise the carbon storage value of ecosystems.
- Street trees and green roofs should be retrofitted where other opportunities are limited and the reduction of temperatures is a priority.

The Core Strategy Policy

- Ensure GI forms part of the Core Strategy evidence base.
- Promote GI as a delivery mechanism for sustainable development.
- Set requirements in planning policies to ensure developers deliver GI.
- Require high levels and standards of greenspace within new developments, drawing upon ANGSt.
- Prioritise the delivery of local non-motorised movement routes in urban GI.
- Focus efforts on locations which will be impacted by growth.
- Urban greenspace should be given sufficient protection, particularly where it may come under development pressures, e.g. brownfield land.
- Be aware of the toolkits produced by Natural Economy Northwest and use to justify or better GI in individual projects when appropriate.

Delivery and management

- A GI delivery plan should be produced, forming part of the overall GI Strategy.
- GI delivery within development sites should be secured using standard planning measures i.e. Conditions, S106 and/or CIL.
- GI delivery on site should be designed into developments through master plans.
- Consideration should be given to the need to guide developers' master plans using Design Guides or Concept Plans/Statements.
- Consideration should be given to the use of a roof tax levy to raise funds for offsite GI, or ongoing GI management.

- Soft levers such as agri-environment monies or woodland grants should be targeted towards GI priorities.
- Grants should be investigated as a means of delivering specific projects.
- Identify opportunities to deliver high profile demonstration projects. Such projects could draw upon grants e.g. Big Lottery.
- The long-term management of GI should be secured up-front.
- Opportunities to raise revenue from GI towards its management should be investigated.