Green Infrastructure Framework

Overview of Green Infrastructure Standards

Contents

1.0 Introducing the Green Infrastructure Standards

The purpose of the Green Infrastructure (GI) Standards within the GI Framework is to define what good GI 'looks like' for local planners, developers, parks and greenspace managers and communities, and how to plan it strategically to deliver multiple benefits for people and nature.

The GI Framework aims to:

- Align the delivery of Green Infrastructure across England with the aims of the Government's 25 Year Environment Plan, i.e. the provision of more and better quality green infrastructure, including urban trees, to make towns and cities attractive places to live and work, and bring about key long term improvements in people's health, support climate resilience and connect people with nature;
- Support delivery of Environment Act measures such as Biodiversity Net Gain and Local Nature Recovery Strategies that will contribute to the Nature Recovery Network and increase delivery of wider ecosystems services.
- Guide local authorities in sound planning of GI, responding to planning reforms and integrating GI to be a core component in creating sustainable places.
- Set out best practice in developing strategic Local Plan policies for GI that contribute to conservation and enhancement of the natural, built and historic environment, and address climate change mitigation and adaptation; and contribute to a strong economy and healthy, safe and prospering communities.
- Set out how green infrastructure can address inequalities in access to nature and the multiple benefits its provides

- Increase good practice in long term maintenance and stewardship of GI to maximise the environmental and other benefits from GI investment.

And as a result will help to:

- simplify, clarify and create certainty about the GI that is required for people, health and wellbeing, nature and the climate, and to support sustainable economic growth.
- speed up the planning processes by bringing clarity, consistency and a level playing field for planners and developers.
- improve communications between local authorities, developers and communities, create attractive, investable places that deliver stronger returns for investors.
- help to identify and prioritise addressing inequalities in GI provision

This document sets out the GI Standards for England.

2.0 Definitions

(For definitions of Greenspace, Accessible Greenspace and Accessible Natural Greenspace etc, please see Annex 1).

Green infrastructure: There are many definitions of GI; the GI Framework uses the definition in the National Planning Policy Framework:

> A network of multi-functional green and blue spaces and other natural features, urban and rural, which is capable of delivering a wide range of environmental, economic, health and wellbeing benefits for nature, climate, local and wider communities and prosperity.

Standards - "A Standard is an agreed, repeatable way of doing something. It's a published document that contains a technical specification or other precise criteria designed to be used consistently as a rule, guideline, or definition". This definition is based on the British Standards Institution's definition of standards. (However, BSI has not been involved in developing the GI Standards).

Indicators - Indicators inform and measure progress against those standards and targets. As used in agriculture and forestry, indicators are variables that reflect the "health" of something (Ott 1978[1]). Indicators identify what conditions will be monitored, while the standards define when those conditions are acceptable or unacceptable. Although any number of variables could be monitored, it is important to identify those indicators that are most linked to issues of concern (Graefe et al. 1990[2]).

Benchmarking is a process of measuring the performance of an organisation's products, services, or processes against those of another organisation considered to be the best in the sector, aka "best in class." The point of benchmarking is to identify internal opportunities for improvement. Benchmarking will help to set local targets.

Target – A target is a result that you are trying to achieve. (Collinsdictionary.com)

[1] Indicators and Standards: Developing Definitions of Quality January 2002 Chapter In book: Wildlife Viewing in North America: A Management Planning Handbook (pp.143-171) Publisher: Corvallis, OR: Oregon State University Press. Editors: Michael J. Manfredo

[2] As above

Examples to illustrate how these definitions operate in practice are given below:

> **Standard**: Everyone has good quality publicly accessible and natural greenspaces close to home based on accessible greenspace standards
>
> **Indicator**: % of people have good quality publicly accessible and natural greenspaces close to home
>
> **Benchmark:** For LAs in the top quartile for this indicator, X% of people have good quality publicly accessible and natural greenspaces close to home
>
> **Target:** The Local Authority will aim for x% of people to have good quality publicly accessible and natural greenspaces close to home by 2030, and y% by 2040 and 100% by date z.

3.0 **The Purpose of the GI Standards– why they are needed, how they will work and the outcomes they will achieve**

Local authorities and developers want clarity on the quantity and quality etc of GI that is needed in an area, and they want a 'level playing field', i.e. that all developers and local authorities should plan, design and deliver GI consistently/ to the same 'rules'. However they also want flexibility to adapt the GI Standards appropriately to different contexts because 'no one size fits all situations'. This can be achieved by clear, specific GI Standards accompanied by guidance on how they should be applied, with benchmarks on average and good performance for different contexts e.g. urban and rural.

The GI Framework and Standards will also, importantly, contribute to delivery of the Nature Recovery Network, Local Nature Recovery Strategies and Biodiversity Net Gain; meeting net zero targets; enhance public health, provide for active travel and foster sustainable economic growth and regeneration.

As a result of achieving the GI Framework and its GI standards across England:

- More people will have access to greenspace close to home (within 15 mins walk) and access to a variety of other parks, greenspaces and natural areas, providing opportunities for contact with nature, increased physical activity, reduced stress and improved health and wellbeing, savings in NHS costs and increased productivity. This will be particularly the case in area of multiple deprivation where access to greenspace leads to proportionally greater benefits.
- Towns and cities will be greener and more beautiful, attracting inward investment and leading to more prospering communities. Greener offices and business parks will encourage and retain new skilled staff and increase productivity. Greener high streets will encourage people to visit them and spend time and money there – enhancing local economies and making them more resilient.
- Increased tree cover, and other green and natural features will help to address climate change by storing carbon, reducing temperatures during heat waves (particularly in urban areas), and soaking up rain water to help reduce flooding.
- Green roofs and walls will insulate buildings and reduce energy use.

- GI will make a significant contribution to nature recovery networks, especially in urban areas, and could contribute to the target of 30% nature rich land cover by 2030.
- More parks, trees and green roofs etc will be well managed and maintained for the long term, enabling them to deliver benefits and value for current and future generations.

4.0 An Overview of the GI Standards– what they are

The GI Framework and its Standards are voluntary and are referred to in the National Model Design Code Part 2 Guidance Notes p21. We aim to secure greater prominence in Planning Practice Guidance and embed the GI Framework in National Planning Policy Framework, subject to planning reforms.

The GI Standards are intended for application across England. The GI Standards are the minimum required for 'good GI'.

Setting and Maintaining Local Standards and Targets:

- The Standards should be applied through a locally led, flexible and pragmatic approach. Local authorities should set their own local GI standards, based on the national GI Standards, taking account of local context and priorities.
- Local authorities should set their own local 'SMART'[3] targets for improvement of GI provision to meet their GI Standards.
- Local Standards should set out that GI is to be maintained to the standards for a minimum of 30 years

This approach recognises that every place has a different starting point in terms of existing GI provision, and experiences different constraints in improving GI. There is a general expectation that in the long term, the majority of urban areas, particularly residential areas, should be able to meet the national GI Standards, and locally set GI Standards and targets are advised to work towards this ambition. However, in some specific places it may not be possible to meet the Standards in the short term due to geography or the density of existing urban development.

Rationale for the GI Standards

Natural England, working with its Advisory Group and partners, have identified **5 Headline GI Standards** (shown below) to collectively address and deliver the GI Framework's **15 Principles of good GI** (Annex 2).

The rationale for the Headline GI Standards is that when used together in a place, they will guide the quantity, accessibility/proximity, capacity, function and quality[4] of the GI, to deliver the 5 'What'

[3] SMART targets are those that are specific, measurable, achievable, realistic and timed.

[4] Quantity and accessibility are delivered and protected primarily by the planning system, because they relate to the location and use of land, but sustained by good management and maintenance. Accessibility is also maintained by other local authority strategies and initiatives, such as those relating to sustainable transport and community safety.

Quality and function are delivered initially through good design, but also sustained and protected by good management and maintenance. The planning system can sometimes assist by generating resources through conditions or planning agreements.

Principles for Good GI, enabling the resulting GI to deliver the main 5 'Why' or outcomes of GI.. (Please see Annex 3 for a table that matches the Standards to the 'What' principles).

Natural England will also provide a more comprehensive 'Full Menu of GI Standards', which includes a range of other industry checklists and tools, indicators and benchmarks for in-depth GI exercises, (planned for 2023).

In the future, Natural England will explore development of standards for the linear recreational network.

5.0 Headline GI Standards

The Draft Headline GI Standards are:

1. GI Strategy Standard

- All LAs produce a GI Strategy and Delivery plan

2. Accessibility Standards

- Everyone has access to good quality greenspace close to home to meet Accessible Greenspace Standards, with a particular focus on access to greenspace within 15 minutes' walk from home.
- All urban local authorities have least 4 ha publicly accessible greenspace per 1,000 population and there is no net loss or reduction in capacity of accessible greenspace per 1,000 population
- All major residential development has at least 2 ha accessible greenspace

3. Quality Standards

- All local authorities and major developments assess and plan the quality of the parks and greenspace provision using the Green Flag Award Criteria.
- All Local authorities have 1ha Local Nature Reserve per 1,000 population

4. Urban Greening Factors

- All urban local authorities have least 4 ha publicly accessible greenspace per 1,000 population and there is no net loss or reduction in capacity of accessible greenspace per 1,000 population (measured at the district scale).
- National Urban Greening Factors of 0.4 for residential and 0.3 for commercial development.

5. Urban Tree Canopy Cover

- All local authorities set and achieve targets for uplift in Urban Tree Canopy Cover.
- Major residential and commercial development is designed to meet these targets
- All new streets are tree lined (in line with NPPF requirements)

* Long term management and maintenance underpins all the standards.

The recommended levels of achievement for the above GI Standards for good GI are set out in the table below. These distinguish the recommended levels of achievement for the GI Standards for **major new** developments[5] and for **area wide application.**

[5] Major housing development is where 10 or more homes will be provided, or the site has an area of 0.5 hectares or more. For non-residential development it means additional floorspace of 1,000m^2 or more, or a site of 1 hectare or more, or as otherwise provided in the Town and Country Planning (Development Management Procedure) (England) Order 2015.

Headline GI Standards

Name of Standard	Type of Standard	Attributes	Major New Development	Area-wide

GI Strategy and Delivery Plan Standard	**Process Standards**	Strategic approach to GI Planning and delivery	• Each major new development has a GI Strategy and Long Term Delivery Plan setting out how the development implements the local authority's GI Policies and design codes; including the local GI Standards and Targets and SUDs (e.g. included in the Masterplan) i.e.
			  • National Urban Greening Factors
			  • Urban Tree Canopy Cover Standards
			  • Accessible Greenspace Standards
			  • Quality of greenspace based on Green Flag Award criteria.
			The GI delivered within (or associated with) major new developments should be managed, maintained and monitored for a minimum of 30 years.
				• All local authorities[6] have a GI Strategy and GI Delivery Plan setting out how they will implement the Access and Greening Standards and strategically plan Sustainable Drainage Systems to deliver good green infrastructure networks that reflect the GI Principles across their area and address inequalities.
				• All Local Plans and Local Design Codes include GI policies or codes on:
				  • National Urban Greening Factors
				  • Urban Tree Canopy Cover Standards
				  • Accessible Greenspace Standards
				  • Quality of greenspace based on Green Flag criteria
				• Local authorities monitor against delivery of Access, Quality and Greening Standards every 5 years (ongoing).

Urban Greening Factor	**Greening Standards**	Urban Greening	• Major new development meets the National Urban Greening Factors:
			  • O.3 Commercial
			  • 0.4 Residential
				• Local authorities set and achieve targets for uplift in urban greening, working towards at least 40% (or UGF 0.4) average green cover in urban residential neighbourhoods where they do not already meet that standard.

[6] For this Standard, Local authorities include unitary, district and borough councils. County Councils and combined authorities are also recommended to develop GI Strategies and Delivery Plans.

Name of Standard	Type of Standard	Attributes	Major New Development	Area-wide
			GI in developments should be maintained and monitored for 30 years.	• There is no net loss of green cover in urban neighbourhoods.
Urban Tree Canopy Cover Standard	**Greening Standards**	Tree Canopy Cover	• Major residential and commercial development is designed to meet local authority set standards and targets for tree canopy cover. • All new streets are tree lined (in line with NPPF requirements) New trees are maintained and monitored for at least 30 years.	• Local standards and targets are set for uplift in urban tree canopy cover. • New trees are maintained and monitored for at least 30 years.
Accessible Greenspace Standard (including standards for accessible natural greenspace)	**Access Standards**	Size, Proximity and Capacity	• Everyone has access to good quality greenspace close to home to meet Accessible Greenspace Standards, with a particular focus on access to greenspace within 15 minutes' walk from home.* **Capacity** • All major residential development has at least 2 ha publicly accessible natural greenspace per 1,000 population[7] • GI delivered within (or associated with) major new developments should be managed, maintained and monitored for 30 years. *The local authority should specify to the developer the quantity, size and distance	**Size-proximity** • Everyone has access to good quality greenspace close to home to meet Accessible Greenspace Standards, with a particular focus on access to greenspace within 15 minutes' walk from home. • This to include: • A doorstep* greenspace of at least 0.5ha within 200 metres. OR • A local accessible natural greenspace of at least 2ha within 300 metres walk from home. AND • A medium sized neighbourhood* natural greenspace (10ha) within 1km , and • And a medium/large* natural greenspace (20ha) within 2km#

Name of Standard	Type of Standard	Attributes	Major New Development	Area-wide
			criteria for any accessible greenspace to be provided within/ associated with the development, based on the Accessible Greenspace Standards – see Annex 1 for definitions.	• And large district natural greenspace (100ha) within 5-km#. • A very large subregional* natural greenspace (500 ha) within 10 km#. *see detailed Accessible Greenspace Standards in Annex 4 for definitions. Distances given are actual walking distances. # Accessible by public transport and or safe active travel routes. **Capacity** • All urban local authorities have least 4 ha publicly accessible greenspace per 1,000 population and there is no net loss or reduction in capacity of accessible greenspace per 1,000 population (measured at the district scale).
Green Flag Award Criteria	Accessible Greenspace Quality		For major developments, the quality of the parks and greenspace provision is assessed, planned and delivered using the Green Flag Award Criteria	All local authorities assess, plan and deliver the quality of their parks and greenspace provision using the Green Flag Award Criteria
Local Nature Reserve Standard	Greenspace quality			• Local Nature Reserve (LNR) provision of 1ha of LNR per 1,000 population

6.0 National Access Target

As part of the work on the Environmental Improvement Plan, Defra has developed a national **Headline Access Target**:

> *Everyone has access to good quality green and blue spaces within fifteen minutes' walk of their home by date x (tbc). We define this as access to either a doorstep greenspace OR local natural greenspace AND a neighbourhood natural greenspace – see definitions.*

As a minimum, Defra and Natural England wants to see everyone having access to greenspace within 15 minutes' walk from home. This could be a stepping stone to achieving the Size-proximity Access Standards.

In terms of the Accessible Greenspace Standards, this means:

- A doorstep* greenspace of at least 0.5ha within 200 metres (under 5 mins walk),

OR

- A local* accessible natural greenspace of at least 2ha within 300 metres (5 mins walk from home

AND

- A medium sized neighbourhood* accessible natural greenspace (10ha tbc) within 1km (15 minutes' walk from home).

*These criteria defined by the Accessible Greenspace Standards.

Natural England has done initial baseline analysis of the 15 minute target in its Mapping Database, but further work is needed to refine this further. This will be available in 2023.

7.0 Indicators and Benchmarks

To help local authorities assess themselves against the GI Standards, Natural England is providing an analysis of the GI mapping at local authority level Examples of Indicators are given in Annex 5.

To help local authorities set their SMART targets for each Standard, Natural England will provide the national average of local authority performance against each of the GI Standards. We will also provide the average performance of the top 25% of local authorities for each standard for comparison, in urban, semi-urban and rural areas. These benchmarks will enable each local authority to compare themselves with authorities in similar contexts.

8.0 Monitoring and Evaluation of the GI Framework at national and local level -

With our contractor, we have developed **an Evaluation Plan[8] for the GI Framework**, to help Natural England and local authorities monitor progress at national and local level. This proposes the

[8] *The Evaluation Plan* includ*es* Theories of Change at national, sub-national and development level. In terms of capturing a baseline assessment, Natural England's contractor has undertaken a **baseline survey of local authorities** regarding GI policy and practice.[8] Natural England has also undertaken a **baseline assessment and analysis of GI on the ground** through the GI Mapping, and captured **public perceptions about GI** e.g. GI quality, through the People and Nature Survey. PaNS can provide understanding of the quality of GI both through usage (a proxy indicator) and survey responses to questions related to expectations and perceptions of respondents local green/natural spaces.

indicators for GI which relate to each of the GI Standards, to measure and monitor their achievement.

These indicators will contribute to reporting on the 25 YEP Outcome Indicator Framework, which includes an indicator (G3) for enhancing Green and Blue Infrastructure. The G3 indicator is in development for reporting in 2023, and will cover accessibility, greenness and perceptions of GI quality.

In addition we will provide guidelines for local authorities to undertake their own local monitoring against their locally set targets.

Annex 1

Definitions of Greenspace accessible and natural greenspace

Definitions (for inclusion in GI Framework website Glossary)

- **Green infrastructure**: A network of multi-functional green and blue spaces and other natural features, urban and rural, which is capable of delivering a wide range of environmental, economic, health and wellbeing benefits for nature, climate, local and wider communities and prosperity.

- **Open Space -** is defined in the Town and Country Planning Act 1990 as land laid out as a public garden, or used for the purposes of public recreation, or land which is a disused burial ground. Open space can include greenspaces and civic spaces. Civic Spaces are hard surfaced areas designed for pedestrians, e.g. for community events.

- **Greenspace** - There are many definitions of greenspace in use. The draft definition of greenspace for the GI Framework is as follows:
    - Greenspace is an area of vegetation that is set within a landscape or townscape. Greenspace includes blue space (i.e. lakes, rivers and wetlands), and may include built environment features. It is not necessarily accessible. High quality greenspace is designed and managed to deliver its intended functions and to meet defined needs. Greenspace may be urban or rural.

  For background and explanation for the definition of Greenspace please see Annex 1

- **Publicly Accessible Greenspace** – places that are available for the general public to use free of charge and without time restrictions (although some sites may be closed to the public overnight and there may be fees for parking a vehicle). The places are available to all, meaning that every reasonable effort is made to comply with the requirements under the Equality Act 2010. There are a range of types of greenspaces included within the definition of accessible greenspace (shown in the diagram above). An accessible place will also be known to the target users, including potential users who live within the site catchment area.

- **Accessible Greenspaces** - Some greenspaces may not be freely accessible to the public but are accessible to club or association members or by ticket and have an important role to play in the overall provision of greenspaces for recreation and enjoyment e.g. bowling greens; or on payment of an entry charge e.g. some historic parks and gardens. We are calling these Accessible Greenspaces.

Some types of greenspaces may be publicly accessible in most cases, but not all, and in our GI Mapping for example we have assigned them as publicly accessible or accessible based on probability.

The following Table sets out the **GI Framework Typology System** which includes publicly accessible greenspaces; accessible greenspace (e.g. allotments and many golf course) as well a non-accessible

greenspaces e.g. many private woodlands. This typology is that to be used in the updated V2 mapping

Typology Family	Typology Code	Typology Title	Publicly Accessible
1 Public and Community Spaces	1.1	Public Park - General	Y
	1.2	Public Park - Country Park	Y
	1.3	Millennium or Doorstep Green	Y
	1.4	Local Nature Reserve	Y
	1.5	National Nature Reserve*1	N
	1.6	Playing Fields	Y
	1.7	Other Sports Facilities	N
2 Access Land (CROW) and section 15 land (CROW)	2.1	Access Land (CRoW) and section 15 land (CROW)	Y
3 Woodland	3.1	Woodland	N
4 Water Features	4.1	Water Courses and Surface Water Features	N
5 Functional Greenspaces	5.1	Allotments or Community Growing Spaces	N
	5.2	Activity Spaces Provision (Inc Bowling Greens, Tennis Courts)	N
	5.3	Cemeteries and Religious Grounds	Y
	5.4	Golf Course	N
	5.5	Play Space Provision	Y
6. Institutional and Amenity Spaces	6.1	Institutional and Amenity Spaces. (Includes OSMM data for camping sites, Institutional Grounds, School Grounds and Amenity land around residential, business and transport facilities).	N
7. Private Spaces	7.1	Private and Community Gardens.	N
8. Coastal	8.1	Foreshore (undifferentiated)	

*1 National Nature Reserves, Woodland and golf courses are only accessible if they have been dedicated as Access Land or are registered common land. Otherwise they are not accessible.

For Background please see archived Companion Guide to Planning Policy Guidance 17 Open Space, Sport and Recreation, which sets out greenspace types and which many local authorities have used in Open Space assessments and strategies.

Natural Greenspace
There are a range of definitions of natural and semi-natural greenspaces.
Please see the following draft definition:

- **Natural Greenspace –** areas of vegetation within a landscape or townscape that include a range of natural and semi-natural habitats and features, such as trees, woodlands and scrub, meadows, ponds and streams, supporting a range of wildlife. They are places where human control and activities are not intensive so that a feeling of naturalness is allowed to predominate. Natural and semi-natural greenspace exists as a distinct typology but also as discrete areas within the majority of other greenspace typologies.

  I.e. Some accessible greenspaces will be predominantly natural, such as Local Naturae Reserves, country parks, and many commons and accessible woodlands, others will include varying amounts of natural greenspace such as less intensively managed areas but also areas that have been improved for biodiversity e.g. naturalisation of culverts into streams/rivers and planting for pollinators, and shelters for wildlife.

  The Principles of the GI Framework are that all greenspaces should be improved for nature/ nature recovery alongside, to increase multifunctionality alongside their other roles and purposes. Creative site management can develop areas of natural greenspace within existing sites that have a range of other primary functions. Considering greenspace as potentially multifunctional is therefore key to the effective implementation of the model.

Determination of Naturalness

To simplify what we mean by natural when mapping natural greenspace we have adopted a 4-level land categorisation system based on that developed by Aleksandra Kazmierczak of Salford University. This measures naturalness on the basis of the typology of the GI i.e. the typology is a proxy. (Please see Annex 4 in (http://www.ukmaburbanforum.co.uk/docunents/other/nature_nearby.pdf)
I.e. in the GI Framework, typologies were assigned a Naturalness rating based on judgement as to the average rating a particular typology was likely to attain. The meaning of "naturalness" for V 1.1 GI Mapping is set out below;

- Level 1 (most natural – lowest apparent levels of management intensity).
- Level 2 (Mixed attributes – overall less intensive management)
- Level 3 (Highly or intensively managed spaces – may contain an element of less intensively managed areas).
- Level 4 (least natural and/or man-made surface (not vegetation, water or soils) No mapped GI typology was assigned this rank although some Formal Sports Facilities may be 100% man made surface and these can be identified using the Greenness attribute).

  Natural England is undertaking further research into mapping of naturalness in urban areas using remote sensing.

Accessible Natural Greenspace

Accessible Natural Greenspace is defined as Greenspace that is both publicly accessible and natural using the definitions above.

Natural England has identified the following types of greenspace as Accessible Natural Greenspace, and included these in the GI Mapping analysis for the Accessible Greenspace Standards

Typology Family	Typology Code	Typology Title
1 Public and Community Spaces	1.1	Public Park – General including recreation grounds and amenity greenspaces
	1.2	Public Park - Country Park
	1.3	Millennium or Doorstep Green
	1.4	Local Nature Reserve
2 Access Land (CROW) and Section 15 Land (CROW)	2.1	Access Land (CRoW) and Section 15 Land (CROW);

In addition, in the Doorstep Greenspace criteria, Natural England has also included Playing fields (category 1.6) , as they are an important amenity close to home for informal recreation.

- **Greenspace Quality** – A recognised standard of excellence that meets the expectations of both the staff and users of a site and the wider community and neighbourhood. Such sites are visually stimulating and attractive, safe and welcoming to all sections of society, managed and maintained to the highest standards of sustainability, and provide an enjoyable and inspirational visitor experience. They provide wider social economic and environmental benefits for people, nature, climate and the economy, and respond to local needs e.g. for flood water management, urban cooling and improving air quality. The quality and condition of habitats and their management are an important component of greenspace quality.

The Green Flag Award is the nationally accepted standard of greenspace quality supported by Natural England. Natural England's GI Standards include the Green Flag Award quality criteria.

Greenspace Visitor Service Standards – These cover a range of core facilities and services that visitors should expect to find at different types of park, reserve or other destination site. Natural England is promoting service standards for NNRs, LNRs and country parks.

The Local Nature Reserve Visitor Standards are included in Local Nature Reserves in England: A guide to their selection and declaration

Annex 2

15 Principles for Good GI

These include:

- 5 Principles for the benefits of GI (health and wellbeing, nature recovery, prospering communities, climate change mitigation and adaptation and good water management);
- 5 Principles that describe good GI attributes (accessible, connected, responds to character, multi-functional, and varied)
- 5 Principles that describe how to plan and deliver GI (partnership and vision, evidence, plan strategically, design, and managed, valued and evaluated).

Benefits principles – 'why' GI should be provided	
Nature rich beautiful places	GI supports nature to recover and thrive everywhere, in towns, cities and countryside, conserving and enhancing natural beauty, wildlife and habitats, geology and soils, and our cultural connections with nature.
Active and healthy places	Green neighbourhoods, green / blue spaces and green routes support active lifestyles, community cohesion and nature connections that benefit physical and mental health and wellbeing, and quality of life.GI also helps to mitigate health risks such as urban heat stress, noise pollution, flooding and poor air quality.
Thriving and prospering places	GI helps to create prospering communities that benefit everyone and adds value by creating high quality environments which are attractive to businesses and investors, create green jobs, support retail and high streets, and to help drive prosperity and regeneration.
Understanding and managing water environment	GI reduces flood risk and improves water quality by maintaining the natural water cycle and sustainable drainage at local and catchment scales; and bringing amenity and biodiversity benefits.
Resilient and climate positive places	GI makes places more resilient and adaptive to climate change and helps to meet zero carbon and air quality targets. GI itself should be designed to adapt to climate change.
Descriptive Principles – what (good) GI is	
Multifunctional	GI should deliver a range of functions and benefits for people, nature and places, address specific issues and to meet their needs. Multifunctionality (delivering multiple functions from the same area of GI) is especially important in areas where provision is poor quality or scarce.
Varied	GI should comprise a variety of types and sizes of green and blue spaces, green routes and environmental features (as part of a network) that can provide a range of different functions, benefits and nature -based solutions to address specific issues and needs.
Connected	GI should function and connect as a living network at all scales (e.g. within sites; and across regions/at national scale). It should enhance ecological networks and support ecosystems services, connecting provision of GI with those who need its benefits.
Accessible	GI should create green liveable places that enable people to experience and connect with nature, and that offer everyone, wherever they live, access to good quality parks, greenspaces and recreational walking and cycling routes that are inclusive, safe, welcoming, well-managed and accessible for all.
Character (locally distinctive)	GI should respond to an area's character so that it contributes to the conservation, enhancement and/or restoration of landscapes; or, in degraded areas, creates new high-quality landscapes to which local people feel connected.

Process Principles – the way (how) to deliver GI	
Partnership and vision	Work in partnership, and collaborate with stakeholders from the outset to co-plan, develop and deliver a vision for GI in the area. Engage a diverse and inclusive range of people and organisations including citizens, local authorities, developers, communities, greenspace managers, environmental, health, climate, transport and business representatives.
Evidence	Use scientific evidence, and good land use practices when planning and enhancing green and blue infrastructure. Understand the evidence for the benefits of current GI assets; and data on environmental, social and economic challenges and needs in the area.
Plan strategically.	Plan strategically and secure GI as a key asset in local strategy and policy, at all scales. Integrate and mainstream GI into environmental, social, health and economic policy. This should help to create and maintain sustainable places for current and future populations, and address inequalities in GI provision and its benefits.
Beautiful well-designed places	Use an understanding of an area's landscape/townscape and historic character to create well-designed, beautiful and distinctive places.
Managed, valued and evaluated.	Plan good governance, funding, management, monitoring, and evaluation of green infrastructure as a key asset from the outset and secure it for the long-term. Make the business case for GI. Engage communities in stewardship where appropriate. Celebrate success and raise awareness of GI benefits.

Annex 3 Table to show Relationship between the Headline GI Standards and the GI Framework Descriptive or 'What ' Principles

	Multifunctional: GI delivers multiple functions & benefits	Varied	Connected	Accessible	Respond to the area's character
Green Infrastructure Strategy	GI Strategy plans how to meet local needs for multiple functions & benefits & address disparities: health, wellbeing; nature recovery SUDS;	Strategic approach to all GI; plans how to enhance existing GI and create a variety of new GI where needed to meet local needs	Assess connectivity and plans enhancements to deliver benefits	Assesses accessibility at different scales across LA area and plans how to meet local needs and address inequalities	Assesses and plans how to respond to, protect and enhance local character of area creates 'new character' where needed
ANGST	Nature rich GI incl green and blue space, which delivers wide range of ecosystems services	Range of sizes of GI, and types of GI eg from playing fields to Local Nature Reserves	A hierarchy of size and distance criteria contributes to ecological connectivity through a network of larger sites interspersed with smaller 'stepping stone's.	ANGST includes publicly and freely available natural greenspaces.	The natural / nature rich aspect of ANGST contributes to the area's character–British native species and habitats,
Green Flag	Management of natural features, wild flora, and fauna; Managing environmental Impact; Climate change adaptation strategies	Green Flag Award Criteria for parks and greenspaces; Green Flag Community Award; Green Heritage Site Accreditation; Green Space Business Award Criteria – for businesses	Green Flag is site-based.	A Welcoming Place; Healthy, Safe and Secure Well Maintained and Clean; Environmental Management; Community Involvement ; Marketing & Communications	Biodiversity, Landscape and Heritage: Management of natural features, wild flora, and fauna; Conservation of landscape features; Conservation of buildings etc
Urban Greening Factor	A weighting factor is assigned to each cover type reflecting its environmental and social value in urban greening; its functionality in providing ecosystem services and	The UGF Guide lists 22 different surface cover types: Vegetation and Tree Planting; Green Roofs and Walls; Sustainable Drainage Systems and Water Features; Paved Surfaces	The UGF focuses on development sites, It doesn't score connectivity within or beyond the site boundary.	Applies to developments and does not score accessibility. May be access for building owners, tenants and residents employees etc. And 'visual access for others.	UGF is recommended for use in urban or semi-urban areas. Advises on reference to local design guidance.
Urban Tree Canopy Cover	Promotes tree planting in urban areas. Trees can provide multiple functions and benefits, hosting many species of wildlife.	While focussed specifically on trees, this standard promotes Street trees, woodlands, trees in private gardens; in parks and greenspaces, in institutional grounds etc.	Street trees, hedgerow trees and linear (and other) woodlands provide connectivity and corridors to support movement of species across urban areas.	Urban trees provide an important opportunity for contact with nature in urban areas.	The standard promotes planting of species that are characteristic to the area.

The table shows that there is a good match between the Headline GI Standards and most of the 'What' of descriptive principles, but a weaker match for 'Connected'. Natural England plan to undertake further work to develop a connectivity standard in 2023.

Annex 4

Headline Standard for Accessible Greenspace provision

We have updated Natural England's Accessible Natural Greenspace Standards (ANGSt) to broaden their scope to include all publicly accessible green and natural spaces. This scope is described in the 25 Year Environment Plan which states:

> We will draw up a national framework of green infrastructure standards, ensuring that new developments include accessible greenspaces and that any area with little or no greenspace can be improved for the benefit of the community. (p.77)

The wider scope is consistent with the GI Framework's Principles that we should aim for integrated planning and design of greenspace to deliver multifunctionality and multiple benefits (while not impacting negatively on sites of nature conservation value). In many cases, enhancing greenspaces for nature can be integrated with delivery of benefits for health and wellbeing, climate, water and the economy. Indeed nature is a fundamental requirement to deliver many of these benefits.

The new scope of the Accessible Greenspace Standards excludes greenspace that isn't publicly accessible, e.g. the greenspace around buildings, and other typologies such as allotments that are normally only accessible to members.

The **Accessible Greenspace Standard** states that everyone should have public access to good quality green and natural spaces close to home.

The Accessible Greenspace Standards define this level of good provision to include

Size-proximity

- A doorstep greenspace of at least 0.5ha within 200 metres.
  OR
- A local accessible natural greenspace of at least 2ha within 300 metres walk from home.

AND

- A medium sized neighbourhood* natural greenspace (10ha)within 1km , and
- And a medium/large* natural greenspace (20ha) within 2km#
- And large district natural greenspace (100ha) within 5-km#.
- A very large subregional* natural greenspace within (500 ha) within 10 km#.

Distances given are actual walking distances.
Accessible by public transport and or safe active travel routes.

The following table clarifies that the Doorstep Greenspace can include playing fields as well as accessible natural greenspace. This criterion is intended to cover communal gardens and type of publicly accessible amenity greenspace which may be accessible natural greenspace but need not be. The other sizes and distance of greenspace are accessible natural greenspace as in the original ANGSt.

The Accessible Greenspace Standards does not cove formal sports provision, for which Sport England is responsible nor play provision, which is covered by Play England.

Accessible Greenspace Standards (Draft Updated)

Category of Accessible Greenspace	Actual walking distance	Name of criterion	Accessible Natural Greenspace	Size criteria (Minimum)	Walking time
1 Small greenspace close to home	200m	Doorstep Greenspace	N	0.5 ha	Under 5 minutes
	300m	Local Greenspace	Y	2 ha	5 minutes
2 Medium sized greenspace within 1km	1km	Neighbourhood Greenspace	Y	10 ha	15 minutes
3 Medium large Greenspace within 2km	2km	Wider neighbourhood Greenspace	Y	20ha	35minutes
4 Large greenspace within 5km from home	5km	District Greenspace	Y	100 ha	Accessible by public transport or safe active travel routes e.g. within 15 minutes cycling of home
5 Very large Greenspace within 10km from home	10km	Sub-regional Greenspace	Y	500 ha	Accessible by public transport or safe active travel routes

Actual walking distance will be measured though network analysis in due course. However, in the meantime, the GI mapping use a straight line distance from home to the boundary of the greenspace in analyses of the ANGSt standards.

The above table uses a walking speed of 60 metres per minute, which is the average for people of 60 years and teenagers.

Capacity Standards

A traditional and commonly used way to set standards for greenspace is to set capacity standards for accessible greenspace. This is advocated by Fields in Trust and included in the National Model Design Code. It has been adopted by many local authorities.

A Capacity standard of 4 ha ANG per 1,000 has been included in the Accessible Greenspace Standards to ensure that sufficient GS is provided in areas of high population density. The GI Mapping analysis shows that the average amount of accessible natural greenspace in urban areas across England is 3.7 ha per 1,000 population,

Suitable Alternative Natural Greenspace may be needed in some locations to offset recreational pressure on protected sites. A standard of 8 ha per 1,000 population has been effective in many places.

Current level of achievement of the Accessible Greenspace Standards across England

Category	Buffer	Name of criterion	Size distance criteria	Average Percentage of total population covered by buffer (%)			
				Rural	Semi-Urban	Urban	National
1	200m	Doorstep Greenspace	At least 0.5 ha of publicly accessible greenspace within 200 m	12	19	36	33
	300m	Local Greenspace	At least 2 ha of publicly accessible natural greenspace within 300 m	11	11.26	28	25
2	1k	Local Greenspace	At least 10 ha of publicly accessible natural greenspace within 1 km	22	25	54	49
3	2k	Wider neighbourhood	At least 20ha of publicly accessible natural greenspace within 2 km	34	38	71	65
4	5k	District	100 ha of publicly accessible natural greenspace within 5 km	39	43	63	59
5	10k	Sub-regional	500 ha of publicly accessible natural greenspace within 10 km	27	27	32	31

The following Red-Amber-Green 'traffic light' system could be adopted to indicate level of accessible greenspace provision according to the size and distance criteria. :

Number of the Accessible Greenspace Size and distance Criteria that are met	No. Accessible Greenspace Standards Criteria that are met	RAG score
• Areas with no accessible greenspace that meets the Accessible Greenspace Standards	0	Red
• Areas with at least 1 accessible greenspace that meets 1 category Accessible Greenspace Standards	1	Amber red
• Areas that meet 2 categories of the Accessible Greenspace Standards = amber	2	Amber
• Areas that meet the National Access Target* i.e. A small and medium sized greenspace within 15 mins walk from home (the 15 minute neighbourhood target)= yellow	2*	Yellow
• Areas that meet 3 categories of the Accessible Greenspace Standards = amber green	3	Amber Green
• Areas that meet 4 categories of Accessible Greenspace Standards = green	4	Green
• Areas with 5 accessible greenspace (in total) to meet 5 categories of the Accessible Greenspace Standards = blue	5	Blue

The above can be mapped and represented visually, as well as analysing the % of people in each category.

Annex 5

Table setting out indicators – how we will know we have achieved the GI Standards

We will undertake regular Monitoring and Evaluation to measure change on the ground and in usage of GI as well as perceptions of GI provision, using the GI Mapping Database and People and Nature Survey. The Table below shows the initial list of indicators that Natural England is considering for national monitoring and evaluation using nationally collected data. Where national data is not available, local authorities and others may gather local data for their use.

Natural England will update the GI Mapping Database and analyse and report on it every 5 years. Natural England will also analyse the relevant questions in the People and Nature Survey to report on people's perception their local greenspace annually. Analysis and reporting of the People and Nature Survey at the county level will be available from 2024 i.e. when sufficient data has been collected.

There are some indicators that are in development e.g. Number of local authorities that have an up-to-date GI Strategy, which meets the GI Standards criteria and Natural England is looking into how data for these indicators can be collected.

There is currently no national data for some of the indicators, and the table below indicates where local authorities would currently need to gather their own local data in order to use the indicator within their area.

Table to show GI Standards matched to indicators

Category of GI Standards	GI Standard	Indicator	Indicator in scope for national monitoring and reporting	Indicator in scope local monitoring & reporting
GI Strategy	GI Strategy	• Number of local authorities that have an up-to-date GI Strategy, which meets the GI Standards criteria.	Y	
		• Number of Local Plans that contain policies on the Headline GI Standards	Y	
		• Number of local authorities that have monitored their delivery of Access, Quality and Greening Standards within the last 5 years	Y	
		• Hectares of additional wildlife-rich habitat created or restored outside of protected sites (towards England's target of 500,000 ha).	Y	
		• Increase in percentage of soil and vegetation versus sealed, man-made surfaces	Y	Y

Category of GI Standards	GI Standard	Indicator	Indicator in scope for national monitoring and reporting	Indicator in scope local monitoring & reporting
		• Increase in percentage of permeable paved surfaces • Increase in tree canopy cover • Increase in greenspace provision (ha) • Development of new urban nature connectivity standard (2023)	Y Y Y Y	
Access Standards	Accessible Greenspace Standards	• Increase in % people living within 15 mins walk of accessible greenspace (the National Access Target) • Increase in % of people living within the other Accessible Greenspace Standards criteria • Increase in hectares of Accessible Greenspace and Accessible Natural Greenspace per 1,000 population. • Increase in % of people who agree their local green and natural spaces have improved in the last 5 years. (People and Nature Survey) • Average distance to waterside access • Increase in the above indicators in areas of deprivation.	Y Y Y Y Y Y	
	Green Flag Award Criteria	• Increase in % people who agree their local greenspaces are good quality (People and Nature Survey) • Increase in % of local authorities who have assessed their greenspaces using the Green Flag Award Quality criteria in the last 5 years • Increase in number of Green Flag Awards	Y Y	Y
Greening Standards				
	Urban Greening Factor	• Increase in percentage soil and vegetation land cover versus sealed, man-made surfaces • Number of Local Plans which include policies for SUDS and UGF for all large developments. • Increase in the Natural Capital value of urban nature. (tbc)	Y Y ?	
	Tree Canopy Cover	• % Increase in Urban Tree Canopy Cover • % Increase Tree Canopy Cover overall • Number of trees planted in urban areas • Increase in carbon storage in trees (and peat) (Tonnes carbon)	Y Y Y	Y Y Y Y

Table to show the 5 Benefits Principles matched to indicators

Benefits Principles	Key measure	Indicator
Nature rich beautiful places	Urban nature recovery networks extend from urban centres into the countryside, offering multiple benefits for nature and people	• Hectares of additional wildlife-rich habitat created or restored outside of protected sites (towards England's target of 500,000 hectares). • Create or restore X Hectares of natural greenspace, measured using NE's GI Mapping Database. • Increase in percentage soil and vegetation versus sealed, man-made surfaces • Increase in tree canopy cover • Increase in greenspace provision • Development of new urban nature connectivity standard (2023)
Active and Healthy Places	Everyone has access to good quality parks and greenspace close to home, for recreation, relaxation, and contact with nature	• Increase in % people living within 15 mins walk of accessible greenspace (the National Access Target) • Increase in % of people living within the other Accessible Greenspace Standards criteria • Increase in hectares of Accessible Greenspace and Accessible Natural Greenspace per 1,000 population. • Increase in % of people who agree their local green and natural spaces have improved in the last 5 years. (People and Nature Survey) • Increase in % people agree their local greenspaces are good quality (PaNS) • Average distance to waterside access • Increase in the above indicators in areas of deprivation
Thriving and Prospering Places	Local economies benefit from urban nature, leading to a stronger local economy and increased prosperity for local communities	• Increase in percentage soil and vegetation versus sealed, man-made surfaces • Increase in tree canopy cover • Increase in the Natural capital value of urban nature. (tbc)
Resilient and Climate Positive Places	GI helps local areas to meet their net zero carbon targets, and adapt to climate change	• Increase in carbon storage in trees (and peat) (Tonnes carbon) • % Increase in Urban tree Canopy Cover • GI Strategy and Local Plan Policies for SUDS and UGF for all large developments.

Understanding and managing water environment	Through green and blue* infrastructure, local areas have improved water quality and quantity; improved ecological networks; and can enjoy waterside access	• GI Strategy and Local Plan Policies for SUDS and UGF for all large developments. • (Other indicators to follow) • Average distance to water side access (metres)