



Green Infrastructure Standards for England - Summary

Green Infrastructure Framework - Principles and Standards for England

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Foreword

Now more than ever we need to ensure that Nature is at the heart of place-making to regenerate towns and cities and create attractive, investable places that are good for people, climate, and the economy.

By incorporating green infrastructure planning and design from the outset, we can deliver the Nature recovery that will unlock benefits for climate change adaptation, net zero targets, wellbeing and prosperity that are urgently needed.

The aim of the Green Infrastructure Standards is to provide clarity about the quantity and quality of green infrastructure that is needed to deliver multiple benefits. The Standards will help local planners, developers, communities, park and greenspace managers to create thriving and sustainable places, and to deliver in accordance with the National Planning Policy Framework. The Standards underpin the Green Infrastructure Framework and set to raise the bar for green infrastructure provision, as an integral element of the Nature Recovery Network and fulfilling commitments in the Government's 25 Year Environment Plan.

For me the greenspace close to where I live is a vitally important place that contributes hugely to quality of life. My local greenspace provides countless benefits, much more than access to an attractive place for exercise. I relish the daily dose of green and casual encounters with Nature, such as the mature deciduous trees that chart the changing seasons, the summer visiting common terns flying along the river, small tortoiseshell caterpillars growing bigger by the day on the nettles in the un-mowed areas or simply having enough open space to create a horizon that reveals the sight of dramatic clouds and the ever changing sky. Even though we live in the centre of the city of Cambridge, having that daily connection with Nature and its cycles is an essential part of what makes our neighbourhood so liveable and popular.

People often feel passionate about their local greenspace because it's a place where they experience and connect with Nature. Green and blue spaces provide the places we meet, socialise, relax, exercise, and connect with Nature on a day-to-day basis. They provide an estimated £25.6bn of 'recreational welfare value' every year and do so in a very cost effective manner, considering how only a fraction of that value is needed to maintain them. The cost effectiveness point is demonstrated in how for every £1 spent on parks in England an estimated £7 in additional value for health and wellbeing and the environment is generated. Green infrastructure provides other important services for society, trees for example, can help store carbon, provide valuable shade, and, when positioned appropriately, help reduce flooding and buffer noise and air pollution. Other green and blue spaces bring a range of benefits including for food, biodiversity, and pollination.

However, the Covid pandemic brought into sharp focus the stark inequalities in access to greenspace. Parks, greenspaces, and green walking and cycling routes that offer open space and fresh air were sought out by millions of people, demonstrating the true importance of opportunities for contact with Nature for our health and wellbeing. But in many places, those who need greenspaces the most don't have access within easy walking distance of home. So, the Green Infrastructure Standards aim to support planners in addressing these inequalities through recommending a target for

- everyone to have access to and benefit from good quality green and blue spaces within 15 minutes' walk from home.

Well planned and designed green infrastructure can help to make towns and cities greener and more beautiful, attracting inward investment, retaining skilled staff, and increasing productivity. Greener High Streets can encourage people to visit them and stay longer, becoming more economically successful and resilient. Green roofs and walls can insulate buildings, helping to reduce energy use, whilst also generating energy when designed as biosolar roofs.

The 5 Green Infrastructure Standards in this report are a key tool, when applied within the wider Green Infrastructure Framework and its Mapping Database, Planning and Design Guide and Process Journeys to support local planners, developers and local communities to create climate resilient, Nature-rich, thriving neighbourhoods, towns and cities for the 21st century.

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We are grateful to the Green Infrastructure Advisory Group who attended stakeholder meetings and webinars during the development of the Urban Greening Factor as well as the specialist reviewers from across Natural England who contributed to this work.

A list of the Green Infrastructure Framework Advisory Group members is provided in [Appendix 1](#).

1.0 Introducing the Green Infrastructure Standards

- 1.1 The purpose of the Green Infrastructure Standards within the 'Green Infrastructure Framework – Principles and Standards for England' (Green Infrastructure Framework) is to define what good green infrastructure '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. To achieve this the Standards set out the attributes of green infrastructure (e.g. accessibility, quantity, quality and type) and include a standard for developing a green infrastructure strategy. When used together, these Green Infrastructure Standards will help stakeholders to deliver the Green Infrastructure Framework's [15 Green Infrastructure Principles](#) and enable everyone to benefit from good green infrastructure provision.
- 1.2 The development of the Green Infrastructure Framework fulfils a commitment in the [Government's 25 Year Environment Plan](#) (HM Government, 2018), to establish a cross-government project, led by Natural England, that reviews and updates existing standards for green infrastructure.
- 1.3 Natural England has developed the Green Infrastructure Framework working closely with Defra and a cross-government Steering Group, and with an Advisory Group including representatives from over 50 green infrastructure sector organisations such as institutes, local authorities, academics, developers and non-governmental organisations.
- 1.4 Natural England has reviewed well established and emerging green infrastructure standards and tools that make an important contribution to improving the planning, design, delivery and quality of green infrastructure. In response to the review findings, Natural England has developed a structured and comprehensive approach to green infrastructure standards, and brought new and existing quantity standards, quality standards and best-practice guidance together into a single, easy-to-use, logical framework/ structure. This draws out key Headline Standards, and signposts more detailed standards and guidance (the Menu of Standards) for use as needed (See Section 4, Figure 1). To fill existing and emergent gaps in practice, Natural England has updated the Accessible Natural Greenspace

Standards and created both the new Urban Nature Recovery Standard and Urban Greening Factor for England. Working in collaboration, Natural England and the Forestry Commission have developed the Urban Tree Canopy Cover Standard. Natural England will raise the profile of these standards and tools, and ensure that they are accessible.

- 1.5 This document sets out the Headline Green Infrastructure Standards for England and will be accompanied by separate User Guidance in due course, including a supporting Menu of green infrastructure standards, tools, and best practice checklists, along with a Signposting Table, which will enable users to identify the standards, benchmarks and indicators that best suit their purpose, context and the outcomes they are seeking.
- 1.6 The Green Infrastructure Standards are one part of the Green Infrastructure Framework – Principles and Standards for England, and should be used in conjunction with:
 - The [15 Principles of Green Infrastructure](#)
 - The on-line [Green Infrastructure Mapping Database](#) and [User Guide](#)
 - The [Green Infrastructure Design Guide](#)
 - The [Green Infrastructure Process Journeys](#)
 - Case Studies
- 1.7 Natural England has developed the above advice and evidence to support local authorities and other stakeholders in assessing green infrastructure provision against these new standards.

2.0 Definitions

- 2.1 (For definitions of Greenspace, Accessible Greenspace and Accessible Natural Greenspace; and for terms relating to Standards such as indicators and benchmarks etc, please see [Appendix 5](#)).
- 2.2 **Green infrastructure:** There are many definitions of green infrastructure. The Green Infrastructure Framework uses the definition in the [National Planning Policy Framework](#) (DLUHC 2021):

'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'.
- 2.3 **Green Infrastructure Framework:** the abbreviation for the Green Infrastructure Framework – Principles and Standards for England, which Natural England has developed to fulfil a commitment in the Government's [25 Year Environment Plan](#) (HM Government, 2018), and which comprises:
- [15 Principles of Green Infrastructure](#)
 - An on-line [Green Infrastructure Mapping Database](#) and [User Guide](#)
 - A [Green Infrastructure Design Guide](#)
 - [Green Infrastructure Process Journeys](#)
 - Case Studies
 - A Monitoring and Evaluation Plan
- 2.4 **Green Infrastructure Standards:** The Standards component of the Green Infrastructure Framework. They comprise the 5 Headline Green Infrastructure Standards and, in due course, user guides including a supporting Menu of Green Infrastructure Standards, accompanied by a Signposting Table, which matches a wide range of green infrastructure standards, guidance and best practice checklists to the 15 Green Infrastructure Principles and different area types.
- 2.5 **Headline Green Infrastructure Standards:** are the top level of standards in the Green Infrastructure Framework and comprise:
- Green Infrastructure Strategy Standard
 - Accessible Greenspace Standards
 - Urban Nature Recovery Standards
 - Urban Greening Factor Standard
 - Urban Tree Canopy Cover Standard

- 2.6 **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 (British Standards Institution, 2012).

The Green Infrastructure Standards define criteria and attributes for good green infrastructure and how to plan, deliver and maintain it. They include criteria/ attributes relating to quantity, size, proximity, capacity, quality, accessibility, type and process (planning and management of green infrastructure), and are designed to be used consistently as a guideline.

- 2.7 **Target** – A target is a result that you are trying to achieve. ([Collinsdictionary.com](#))

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

Standard: Everyone has access to good quality parks, green and blue spaces close to home for health and wellbeing, to meet the Accessible Greenspace Standards, with an initial focus on access to green and blue spaces within 15 minutes' walk from home.

Target: The local authority will aim for x% of people to have access to good quality parks, green and blue spaces close to home for health and wellbeing, to meet the Accessible Greenspace Standards, with an initial focus on access to green and blue spaces within 15 minutes' walk from home by 2030, and y% by 2040 and 100% by date z.

3.0 Purpose of the Green Infrastructure Standards

3.1 The purpose of the Green Infrastructure Standards is to drive improvement in the quantity and quality of green infrastructure. The Standards support the aims of the Green Infrastructure Framework (Appendix 3) and can help to deliver the 15 Green Infrastructure Principles.

Figure 1 - The 15 Green Infrastructure Principles



3.2 The aims of the Green Infrastructure Standards are to:

- help all green infrastructure stakeholders to put the Green Infrastructure Framework's 15 Green Infrastructure Principles into practice by setting out standards for creating new high-quality green infrastructure and enhancing existing neighbourhoods and greenspaces.
- help local planning authorities and developers meet requirements in the [National Planning Policy Framework](#) (DLUHC, 2021) to consider green

infrastructure in local plans and in major new development; and prepare design guides or codes consistent with the principles set out in the [National Design Guide](#) (MHCLG, 2021) and [National Model Design Code](#) (DLUHC, 2021a).

- simplify and clarify the green infrastructure that is required for people, health and wellbeing, nature and the climate, and to support sustainable economic growth, in terms of strategic planning, quantity, quality, capacity, type and stewardship of green infrastructure.
- enable local authorities, developers and communities to assess their green infrastructure related plans and proposals in an evidence-based and consistent way, and to set local green Infrastructure targets to respond to local context and needs.
- provide benchmarks that enable local authorities to compare different areas, highlighting good green infrastructure provision and helping to identify and address inequalities in provision.
- bring greater weight to best green infrastructure practice at different spatial scales.
- speed up the planning processes by bringing clarity, consistency and a level playing field for planners and developers, and help to create attractive, investable places.
- improve communications between local authorities, developers and communities.
- provide metrics for monitoring green infrastructure, and help show progress towards achieving the [25 Year Environment Plan](#) (HM Government, 2018) commitments on green infrastructure, the [United Nations Sustainable Development Goals](#) (United Nations, 2015) and the [Convention on Biological Diversity Targets](#) (Secretariat of the Convention on Biological Diversity, 2010).
- In future, we will set out accompanying indicators for the standards that can be measured using the Green Infrastructure Mapping Tool and other readily available datasets and resources.

4.0 Green Infrastructure Standards - Approach

- 4.1 The Green Infrastructure Framework and its Standards are voluntary, but are designed to help meet national and local planning policy. They are referred to in the [National Model Design Code Part 2 Guidance Notes](#) p21 (DLUHC, 2021a). The Green Infrastructure Standards can also support delivery of the [United Nations Sustainable Development Goals](#) (United Nations, 2015).
- 4.2 Natural England, working with its Steering and Advisory Groups and contractors, have developed the following Green Infrastructure Standards approach:
- 4.3 **National level**
- National standards for good green infrastructure (the Green Infrastructure Standards) set out what good green infrastructure 'looks like' to create greener, beautiful, healthier and more prosperous neighbourhoods, that have a thriving nature network, lower levels of pollution (air and water), sustainable drainage and that can adapt to climate change.
 - Natural England will have an ongoing local role in provision of green infrastructure advice and engagement.
- 4.4 **Local level**
- Local authorities and communities assess and strategically plan their green infrastructure provision e.g. through developing a Green Infrastructure Strategy and in other strategies and plans.
 - In assessing and strategically planning their green infrastructure provision, local authorities can apply the Green Infrastructure Standards locally, adapting them to local context where appropriate, and setting green infrastructure policies, proposals and development requirements in development plans and local design codes.

- Local Planning Authorities set SMART¹ targets, in a Delivery Plan, for achieving the Green Infrastructure Standards and local policies over time.
- Local Planning Authorities monitor and evaluate green infrastructure policies and delivery every 5 years.

4.5 As stated above, the Green Infrastructure Standards comprise 3 levels. These are set out in the diagram and table below:

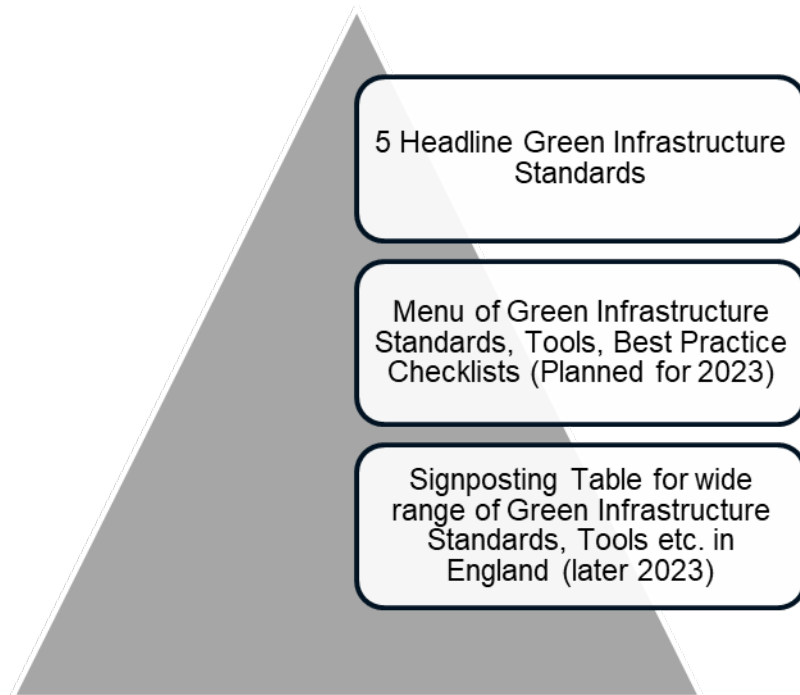


Figure 2 - The three-tier structure of the Green Infrastructure Standards

¹ SMART: specific, measurable, achievable, realistic and timed

Table 1 - The Three-tier structure of the Green Infrastructure Standards

Tier	Description	Purpose
1	<p>Headline Green Infrastructure Standards</p> <p>Headline Standards are 'owned' by the Government and drawn from the Tier 2 Menu of Green Infrastructure Standards</p>	<p>The 5 Headline Green Infrastructure Standards guide the quantity, accessibility/ proximity, capacity, function and quality of the green infrastructure. Used together they will help to deliver the 5 'What' Principles, which in turn will help the resulting green infrastructure to deliver the main 5 'Why' Principles (benefits).</p> <p>The Headline Green Infrastructure Standards are for use by local planning authorities and other stakeholders informed by local knowledge and evidence to:</p> <ul style="list-style-type: none"> • undertake initial green infrastructure planning exercises, e.g. develop a vision for local green infrastructure and understanding of current green infrastructure provision, needs and priorities. • set key local green infrastructure targets • monitor and evaluate green infrastructure provision.
2	<p>Menu of Green Infrastructure Standards</p> <p>Standards and tools are owned by a range of organisations.</p>	<p>A Menu setting out a more comprehensive range of green infrastructure standards, tools and best-practice checklists, which when used collectively can support the 5 Headline Green Infrastructure Standards for in-depth green infrastructure planning, and to deliver the 15 Green Infrastructure Principles at a more detailed level.</p>
3	<p>Signposting Table</p>	<p>A table of all the Green Infrastructure Standards in the Menu as well as a wide range of other green infrastructure guidance in use across England. Each constituent green infrastructure standard etc. is matched to:</p>

Tier	Description	Purpose
		<ul style="list-style-type: none"> • all 15 Green Infrastructure Principles • different contexts, e.g., new development or existing green infrastructure • green infrastructure area type, from city centre to rural. <p>The Signposting Table will enable users to identify the most appropriate standards, benchmarks and indicators for their purpose.</p>

4.6 The Headline Standards are restricted to key green infrastructure standards that the Government owns. As a non-departmental government organisation, Natural England must be fair and transparent in promoting standards that are owned by other organisations, and not show favour or bias, especially where there is a commercial model in operation. The supporting Menu of Green Infrastructure Standards also includes selected standards and guidance that are owned by other organisations. The Signposting Table aims to be a comprehensive and open resource of green infrastructure standards. User Guides including the supporting Menu and Signposting Table will be published in due course.

5.0 Development of the Green Infrastructure Standards

- 5.1 The development of the Green Infrastructure Framework has been overseen by a cross departmental steering group as part of the [25 Year Environment Plan](#) (HM Government 2018). The Framework development has also benefited from technical input from an advisory group (Appendix 1), made up of local authorities, academics, sector institutions, developers, voluntary sector bodies, representative organisations and businesses. A list of the contractors who contributed to the development of the Green Infrastructure Standards is provided in [Appendix 4](#).
- 5.2 Consultation on the emerging Framework products has taken place in a number of phases with a broad range of key stakeholders. These activities included local planning authority trials, housing and development sector consultation, local authority consultation and a public survey consultation.
- 5.3 Following the launch in January 2023, we will seek feedback on the Green Infrastructure Standards. We will support local authorities in assessing their green infrastructure against the new standards through a programme of training that supports uptake and delivery. Over time we will monitor and evaluate the Standards. We will also contribute evidence to reports on the [25 Year Environment Plan Outcomes Indicator Framework](#) for blue and green infrastructure. We will use these and other evaluation and reporting exercises to understand how and whether the Green Infrastructure Standards should be adjusted.

6.0 Headline Green Infrastructure Standards

- 6.1 The Headline Green Infrastructure Standards are set out below. These distinguish the recommended levels of achievement for the Green Infrastructure Standards for **major new developments**² and for **area wide application**.
- 6.2 We will monitor and evaluate these standards over time to see how and whether they should be adjusted to reflect emerging good practice.

S1. Green Infrastructure Strategy Standard

- 6.3 **Area wide:**
- Local authorities, working in partnership with stakeholders including local communities, assess and strategically plan their green infrastructure provision, for example as part of a Green Infrastructure Strategy. Plans set out how green infrastructure will help to create greener, beautiful, healthier and more prosperous neighbourhoods, with a thriving nature network that can reduce air and water pollution, support sustainable drainage and help places adapt to climate change.
 - In doing this, they apply the 15 Green Infrastructure Principles and the Green Infrastructure Standards locally (adapting them to local context where appropriate) and set green infrastructure policies, proposals and development requirements in development plans and local design codes. Local authorities set SMART targets in a Delivery Plan for achieving the Green Infrastructure Framework Standards and local policies over time, as well as arrangements for the long term management and maintenance of all green infrastructure. ([Natural England Process Journey for Local Planning Authorities - Developing Green Infrastructure Policies and](#)

² 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 1,000m² 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](#).

[Strategies using the Green Infrastructure Framework- Principles and Standards for England](#), Natural England, 2023f).

- Plan and monitor and evaluate progress against delivery of these local targets every five years.

6.4 Major development:

- Each major new development has a Green Infrastructure Plan (which may be part of a Design and Access Statement) setting out how the development will deliver the Green Infrastructure Framework's 15 Green Infrastructure Principles and the Green Infrastructure Standards as set out in local green infrastructure policies, proposals and development requirements in development plans and local design codes. The green infrastructure delivered within (or associated with) major new developments should be managed, maintained and monitored for a minimum of 30 years.

S2. Accessible Greenspace Standards, including Quality Standards

6.5 Area wide:

- Accessible Greenspace Standards (AGS) – Size and Proximity criteria: Everyone has access to good quality green and blue spaces close to home for health and wellbeing and contact with nature, to meet the AGS size and proximity criteria, with an initial focus on access to green and blue spaces within 15 minutes' walk from home. (See Appendix 2 for size and proximity criteria.)
- Accessible Greenspace Standards – Capacity criteria: Local authorities have at least 3 hectares of publicly accessible greenspace per 1,000 population and there is no net loss or reduction in capacity of accessible greenspace per 1,000 population at an area-wide scale. Local authorities specify capacity targets for all major residential development informed by a local accessible greenspace baseline, and taking into account local needs, opportunities and constraints.
- Accessible Greenspace Standards – quality criteria: Accessible greenspace meets the [Green Flag Award Criteria](#), (Ellicott, 2016) and best practice in accessibility for all: [By All Reasonable Means: Least restrictive access to the outdoors](#) (The Sensory Trust, 2020).

6.6 Major development:

- Accessible Greenspace Standards – Size Proximity criteria: For all major residential developments, the local authority specifies to the developer the quantity, size and distance criteria (see Appendix 2) for any accessible greenspace to be provided within/ associated with the development, based on the Accessible Greenspace Standards.
- Accessible Greenspace Standards – capacity criteria: All major residential development is designed to meet capacity targets (hectares of accessible greenspace per 1,000 population), specified by the local planning authority.
- Accessible Greenspace Standards – quality criteria: Accessible greenspace meets the [Green Flag Award Criteria](#), (Ellicott, 2016) and best practice in accessibility for all: [By All Reasonable Means: Least restrictive access to the outdoors](#) (The Sensory Trust, 2020) in major new developments.

S3. Urban Nature Recovery Standard

6.7 Area-wide:

- In urban and urban fringe areas, the proportion of green infrastructure that is designed and managed for nature recovery is increased by an agreed percentage based on a locally defined baseline and taking into account local needs, opportunities and constraints. This includes the creation and restoration of wildlife rich habitats, which can contribute to the delivery of local nature recovery objectives.
- Local authorities in urban and urban fringe areas set targets for nature recovery through provision and sustainable management of Local Nature Reserves and Local Wildlife Sites, to:
 - Provide 1 hectare of Local Nature Reserve (LNR) per 1,000 population (for nature conservation and quiet enjoyment).
 - Enhance existing and identify new areas that qualify as Local Wildlife Sites (for nature conservation).

6.8 Major Development:

- The developer identifies in the Green Infrastructure Plan for the development (or in the Design and Access Statement, as appropriate), its contribution to nature recovery and the creation and restoration of

wildlife rich habitats, which can contribute to the delivery of local nature recovery objectives, including the potential for creation or enhancement of Local Nature Reserves or Local Wildlife Sites.

S4. Urban Greening Factor Standard

6.9 Area-wide:

- Urban greening is at least 40% average green cover in urban residential neighbourhoods where they do not already meet that standard. There is no net loss of green cover in urban neighbourhoods. ([User Guide etc](#), Natural England, 2023a-e)

6.10 Major Development:

- Major development meets National Urban Greening Factors of at least 0.3 for commercial development, 0.4 for residential development, (and, where appropriate, 0.5 for residential greenfield development). ([User Guide etc](#), Natural England, 2023a-e)

S5. Urban Tree Canopy Cover Standard

6.11 Area-wide:

- Urban Tree Canopy Cover is increased by an agreed percentage based on a locally defined baseline and taking into account local needs, opportunities and constraints

6.12 Major Development

- Major residential and commercial development is designed to meet these targets
- New and existing trees are incorporated into new developments and new streets are tree lined (in line with NPPF requirements)

Notes to accompany the Green Infrastructure Standards

6.13 Long term management and maintenance underpins all the standards as set out in the Green Infrastructure Strategy Standard.

6.14 Suitable Alternative Natural Greenspace (SANGS), which is the name given to greenspace that is of a quality and type suitable to provide alternative greenspace to divert visitors from visiting sensitive sites such as Special Protection Areas (SPAs). SANGS are intended to provide mitigation for the

potential impact of residential development on the SPA by preventing an increase in visitor pressure on the SPA. To achieve this, a higher standard than the Accessible Greenspace Standards (above) is often set, i.e. a SANGs Standard of 8 hectares per 1,000 head of new population. The effectiveness of SANGS as mitigation will also depend upon the location and design.

7.0 Access to Greenspace Close to Home Target

- 7.1 Local Authorities are encouraged to adopt a local Greenspace Close to Home Access target:

Everyone has access to a variety of good quality green and blue spaces within fifteen minutes' walk of their home by date x (local authorities to set date).

- 7.2 This could be defined in terms of the Accessible Greenspace Standards (Appendix 2):

EITHER a Doorstep OR Local Accessible Greenspace:

- A Doorstep Accessible Greenspace of at least 0.5ha within 200 metres (under 5 mins walk),
- A Local Accessible Natural Greenspace of at least 2ha within 300 metres (5 mins walk from home)

AND a Neighbourhood Accessible Natural Greenspace

- A medium sized Neighbourhood Accessible Natural Greenspace (10ha) within 1km (15 minutes' walk from home).

- 7.3 As a minimum, there should be an ambition for everyone to have access to a variety of greenspace within 15 minutes' walk from home. This could be a stepping stone to achieving a fuller range of size-proximity Accessible Greenspace Standards.

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

8.0 Green Infrastructure in National Policy

National Planning Policy Framework

- 8.1 Green Infrastructure can make a significant contribution to delivering sustainable development which is the primary objective of the planning system.
- 8.2 Green infrastructure is considered a strategic priority in the [National Planning Policy Framework](#) (DLUHC/2021b, para 20) and its importance is emphasised. I.e. it is one of the strategic policies that development plans must include to address a local planning authority's priorities for the development and use of land in its area. (DLUHC, 2021b, para 17).
- 8.3 In relation to green infrastructure, the NPPF states that
- Strategic policies should make sufficient provision for **green infrastructure** as part of the conservation and enhancement of the natural, built and historic environment (DLUHC, 2021b, paragraph 20),
 - Planning policies and decisions should aim to achieve healthy, inclusive and safe places ... for example through the provision of safe and accessible **green infrastructure** [our emphasis] (DLUHC, 2021b, paragraph 92),
 - New development should be planned for in ways that avoid increased vulnerability to the range of impacts arising from climate changeincluding through the planning of **green infrastructure** [our emphasis] (DLUHC, 2021b, Paragraph 154).
 - Plans should take a strategic approach to maintaining and enhancing networks of habitats and **green infrastructure** [our emphasis]; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries' (DLUHC, 2021b, Paragraph 175)
 - Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and **green infrastructure** [our emphasis] provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach...(DLUHC, 2021b, Paragraph 186).

The 25 Year Environment Plan

- 8.4 [The 25 Year Environment Plan](#) is also clear in the need 'to improve existing green infrastructure by encouraging more investment while making sure there is a presumption for sustainable development' (HM Government 2018, p77).

The Environment Act 2021

- 8.5 **Biodiversity Net Gain (BNG)** is an approach which aims to leave biodiversity and the natural environment in a measurably better state when land use changes and when development occurs. BNG is already a requirement in many local plans. The [Environment Act 2021](#) (The Stationery Office 2021) includes provisions that will make BNG mandatory in England for most development types. The [Biodiversity Metric 3.1](#) (Natural England, 2022a) used to calculate biodiversity net gain includes within it many common green infrastructure habitat features, such as Sustainable Drainage Systems (SuDs), green roofs and walls etc and their inclusion in a scheme design can contribute towards meeting BNG requirements.
- 8.6 Enhancing the biodiversity value of, or creating new, offsite green infrastructure, such as parks and other green and blue spaces and linear green infrastructure can also be used to meet BNG requirements. Natural England's [Environmental Benefits from Nature Tool](#) (Natural England, 2021) is designed to work alongside BNG to enable more detailed consideration of wider environmental benefits for people and nature.
- 8.7 The Headline Green Infrastructure Standards' Urban Greening Factor promotes more nature-rich environments that increase the functionality, sustainability and climate resilience of urban areas. Urban Greening Factors can also be used alongside BNG, especially on sites with no or very limited pre-existing biodiversity value, to drive urban greening by helping to set the quantity and functionality of green infrastructure that should be delivered on-site.
- 8.8 Guidance on applying BNG in development should be followed. The benefits of BNG are set out in a [brochure](#) (Natural England 2022b). Guidance for mandatory BNG is currently being developed by Government and will be available shortly. Full guidance on the use and application of the [Biodiversity Metric](#) (Natural England, 2022a) is available.

- 8.9 [Local Nature Recovery Strategies](#) (Defra 2022) are new locally led, mandatory spatial strategies for nature required by the Environment Act 2021. They will bring together communities and decision makers across the public, private and voluntary sectors in local areas across the country to collaborate in planning and prioritising action for nature's recovery. This will support delivery of the [Nature Recovery Network](#) (Defra and Natural England, 2020). The strategies are intended to work closely alongside other measures in the Act to:
- support delivery of mandatory biodiversity net gain and provide a focus for a strengthened duty on all public authorities to conserve and enhance biodiversity. They will also help to develop partnerships and to integrate nature into our incentives and land management activities.
- 8.10 In due course Local Nature Recovery Strategies will provide an important framework for developing and applying green infrastructure policies to promote urban nature conservation, meet local biodiversity priorities and support delivery of mandatory BNG. Green infrastructure will help urban districts and local authorities in particular to meet their statutory duty to conserve and enhance biodiversity. Green infrastructure policies can be used, for example, to strengthen wildlife networks and improve specific habitats for priority species including wetlands, woodlands, native hedgerows and grasslands. Crucially, well planned urban green infrastructure should link to and support wildlife habitats and nature recovery networks in the wider landscape, as well as bringing nature into our towns and cities. This can be achieved by linking green infrastructure strategies explicitly to Local Nature Recovery Strategies so that they work together and support each other, and by applying the [Headline Green Infrastructure Standard for Urban Nature Recovery](#) (see section 6).

9.0 Indicators and Benchmarks

- 9.1 To help local authorities assess themselves against the Green Infrastructure Standards, Natural England intends to provide an analysis of the Green Infrastructure mapping at local authority level. Examples of Indicators will be provided in the User Guide.
- 9.2 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 Green Infrastructure Standards. In due course, 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 other authorities in similar contexts.

10.0 Monitoring and Evaluation of the Green Infrastructure Framework

- 10.1 With our contractor, we have developed an Evaluation Plan³ for the Green Infrastructure Framework, to help Natural England monitor progress at national level. This proposes the indicators to measure and monitor the achievement regarding each of the Green Infrastructure Standards.
- 10.2 These indicators will contribute to reporting on the [Outcome Indicator Framework for the 25 Year Environment Plan](#) (Defra 2019), 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 and perceptions of green infrastructure quality.
- 10.3 In addition, we will provide guidelines, in due course, for local authorities to undertake their own local monitoring against their locally set targets.

³ *The Evaluation Plan* includes 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 Green Infrastructure policy and practice.³ Natural England has also undertaken a baseline assessment and analysis of green infrastructure on the ground through the Green Infrastructure Mapping, and captured public perceptions about Green Infrastructure e.g. Green Infrastructure quality, through the People and Nature Survey (PaNS). PaNS can provide understanding of the quality of green infrastructure both through usage (a proxy indicator) and survey responses to questions related to expectations and perceptions of respondents local green /natural spaces.

Appendix 1 – Green Infrastructure Framework Advisory Group Members

Organisations in the Green Infrastructure Framework Advisory Group:

1. Activity Alliance
2. AECOM
3. Berkeley Homes
4. Birmingham City Council
5. Birmingham City University
6. Brillianto
7. Buckinghamshire County Council
8. Building Research Establishment
9. Building with Nature
10. Cambridge City Council
11. Canal and River Trust
12. Chartered Institute of Ecology and Environmental Management (CIEEM)
13. Chartered Institute of Water and Environmental Management (CIWEM)
14. Chilterns Area of Outstanding Natural Beauty Unit
15. Construction Industry Research and Information Association (CIRIA)
16. Core Cities Group
17. Country Land and Business Association
18. Cycling UK
19. Department for Environment, Food and Rural Affairs (Defra)
20. Ecosystems Knowledge Network
21. Eden Project
22. Environment Agency
23. Essex County Council
24. Field Studies Council
25. Fields In Trust
26. Forestry Commission
27. Friends of the Earth
28. Future Parks Accelerator
29. Greater Manchester Combined Authorities
30. Groundwork
31. Historic England
32. Home Builders Federation
33. Homes England

34. Keep Britain Tidy
35. Land Trust
36. Landscape Institute
37. Lendlease
38. Local Government Association
39. Lockhart Garratt
40. Mind
41. Mott MacDonald
42. National Federation of Parks and Greenspaces
43. National Grid
44. National Infrastructure Commission
45. National Trust
46. Natural England
47. Nene Park Trust
48. Nottingham City Council
49. Office for Health Improvement and Disparities, Department of Health and Social Care
50. Open Spaces Society
51. Ordnance Survey
52. Parks Alliance
53. Peel Land and Property Group Management Limited
54. Royal Society of Protection of Birds (RSPB)
55. Sport England
56. Sustrans
57. The Association of Directors of Environment, Economy, Planning and Transport
58. The Ramblers
59. The Rivers Trust
60. The Wildlife Trusts
61. Town and Country Planning Association
62. UK Green Building Council
63. UK Urban Ecology Forum
64. University of Birmingham
65. University of Manchester
66. University of Northumbria
67. University of Oxford
68. University of the West of England
69. Urban&Civic
70. Urban Nature Ltd
71. Wildfowl and Wetlands Trust
72. Wildlife and Countryside Link
73. WSP Global Inc

Appendix 2 - Accessible Greenspace Standards

We have updated Natural England's Accessible Natural Greenspace Standards (ANGSt) to broaden their scope, and we have re-named them Accessible Greenspace Standards.

The **Green Infrastructure Headline Standards** states everyone should have access to good quality green and blue spaces close to home for health and wellbeing and contact with nature, to meet the **Accessible Greenspace Standards**, with an initial focus on access to green and blue spaces within 15 minutes' walk from home.

The Accessible Greenspace Standards define good provision based on different size-proximity, capacity and quality criteria as set out below.

Size Proximity Criteria

Within 15 minutes' walk:

EITHER a Doorstep OR Local Accessible Greenspace

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

AND

- A medium sized **neighbourhood natural greenspace** (10ha) within 1km.

AND, beyond 15 minutes' walk:

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

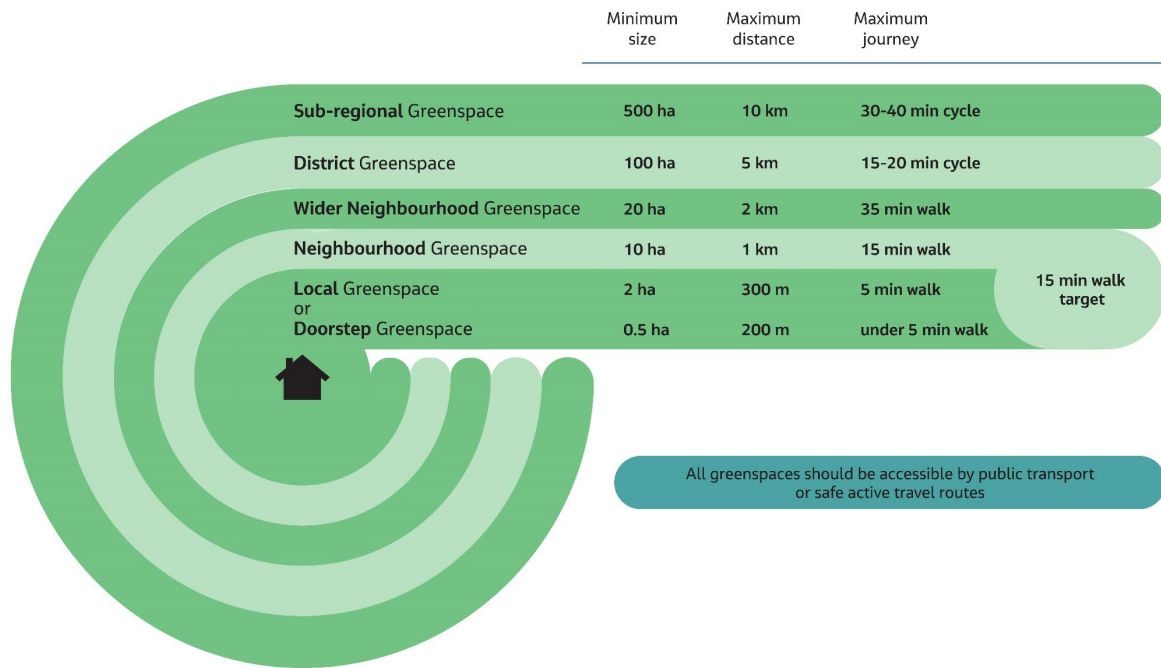


Figure 2: Accessible Greenspace Standards - size-proximity

Table 1 Accessible Greenspace Standards

Category of Accessible Greenspace	Actual walking distance	Name of criterion	Accessible Natural Greenspace	Size criteria (minimum)	Approximate walking / cycling time
1. Small greenspace close to home: either a Doorstep or Local Greenspace	200m	Doorstep Greenspace	N	0.5 ha	Less than 5 minutes
As above	300m	Local Natural Greenspace	Y	2 ha	5 minutes
2. Medium sized	1km	Neighbourhood Natural Greenspace	Y	10 ha	15 minutes

Category of Accessible Greenspace	Actual walking distance	Name of criterion	Accessible Natural Greenspace	Size criteria (minimum)	Approximate walking / cycling time
greenspace within 1km					
3. Medium large Greenspace within 2km	2km	Wider Neighbourhood Natural Greenspace	Y	20ha	35 minutes
4. Large greenspace within 5km from home	5km	District Natural Greenspace	Y	100 ha	15 – 20 minutes cycling from home
5. Very large Greenspace within 10km from home	10km	Sub-regional Natural Greenspace	Y	500 ha	30 - 40 minutes cycling from home

Notes:

- Distances given are actual walking distances. Actual walking distance will be measured though network analysis in due course. However, in the meantime, the Green Infrastructure Mapping uses a straight line distance from home to the boundary of the greenspace in analyses of the AGS standards.
- Where possible all greenspaces should be accessible by public transport and or safe active travel routes.
- The Accessible Greenspace Standards do not cover formal sports provision, for which Sport England is responsible; nor play provision, which is covered by Play England.
- The above diagram uses a walking speed of 60 metres per minute, which is the average for people of 60 years and teenagers. It uses a cycling speed of 20 kilometres per hour as an average for inexperienced cyclists

Capacity Criteria

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](#) (Fields in Trust, 2015) and included in the National Model Design Code (DLUHC 2021a). It has been adopted by many local authorities.

A Capacity standard of at least 3 ha accessible greenspace per 1,000, measured at district /borough/ unitary authority-wide scale, has been included in the Accessible Greenspace Standards to ensure that sufficient greenspace is provided across a local authority area. Please see the Green Infrastructure Standards User Guide and Green Infrastructure Mapping User Guide for clarification of the types of Accessible Greenspace (and Accessible Natural Greenspace) that are covered by the Accessible Greenspace Standards and Green Infrastructure Mapping Analysis.

Quality Criteria

The Accessible Greenspace Standards Quality Criteria recommend that:

- Accessible greenspace meets the [Green Flag Award Criteria](#), (Ellicott, 2016) and best practice in accessibility for all: [By All Reasonable Means: Least restrictive access to the outdoors](#) (The Sensory Trust, 2020) in major new developments.

The Green Flag Award® scheme originated in 1996 and is a non-profit international accreditation programme that recognises and rewards well managed parks and green spaces, setting the benchmark standard for the management of recreational outdoor spaces across the United Kingdom and around the world. (Ellicott, 2016)' The Green Flag Award® is managed under licence from the UK Government by Keep Britain Tidy and delivered internationally through a network of national operators. It is an ISO 9001 (QMS) Certified process.

Natural England recommends that parks and greenspaces managers use the Green Flag Award® criteria to assess the quality of their site management, and to plan and deliver management enhancements as needed. Local authorities and others may wish to apply for accreditation through the Green Flag Award®, but this is not necessary to meet the Green Infrastructure Framework's Accessible Greenspace Standards.

The criteria include the following which are set out in The Green Flag Award® Guidance Manual (Ellicott, 2020):

- A Welcoming Place

- Healthy, Safe and Secure
- Well Maintained and Clean
- Environmental Management
- Biodiversity, Landscape and Heritage
- Community Involvement
- Marketing and Communication
- Management

The award criteria can be applied to all greenspaces including:

- City Parks
- Nature Reserves
- University Campuses
- Woodland
- Neighbourhood Parks
- Country Parks
- Cemeteries and Burial Grounds
- Botanic and Historic Gardens

Access for All Criteria

The Access for All criteria within the Accessible Greenspace Standards are based on the principle of inclusive access, and best practice guidance set out in '[By All Reasonable Means – Least restrictive access to the outdoors](#)' (Sensory Trust, 2020). This publication guides greenspace, recreational route and other recreational land managers in providing more inclusive access, in more places, for more people, i.e. enable more people of all ages, circumstances and backgrounds to enjoy the outdoors.

The Guide is an updated version of an original publication, commissioned by Natural England's predecessor, the Countryside Agency, from the Sensory Trust to produce practical guidance for countryside managers on Access for All in 2005. The Sensory Trust updated this on behalf of Natural England, and in collaboration with Natural Resources Wales, in 2020.

The updated Guide responds to the Equality Act 2010, and addresses accessibility in its widest sense, embracing all the protected characteristics identified by the Equality Act (2010). The Guide is based on the principle of Least Restrictive Access – an approach that aims for the highest standards possible for a particular piece of work.'

Rationale for updated scope and name

The broader scope of the Accessible Greenspace Standards includes all publicly accessible green and natural spaces. This scope is described in the [25 Year Environment Plan](#) (HM Government, 2018) 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 Green Infrastructure 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 greenspaces that are not publicly accessible, e.g. the greenspace around privately owned buildings, and other typologies such as allotments that are normally only accessible to members.

Appendix 3 – Aims of the Green Infrastructure Framework

The Green Infrastructure Framework aims to:

- Align the delivery of Green Infrastructure across England with the aims of the Government's 25 Year Environment Plan - 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](#) (Defra, 2022) that will contribute to the [Nature Recovery Network](#) and increase delivery of wider ecosystems services
- Guide local authorities in planning green infrastructure, responding to planning reforms and integrating green infrastructure as a core component of sustainable places
- Set out best practice in developing strategic Local Plan policies for green infrastructure
- Set out how to address inequalities in access to nature and the multiple benefits it provides
- Increase good practice in long term maintenance and stewardship of green infrastructure to maximise its benefits.

And as a result can help to:

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

Application of the Green Infrastructure Framework and its Green Infrastructure standards across England is likely to lead to:

- More people having access to greenspace close to home (within 15 mins walk) and to a variety of larger greenspaces and natural areas within 10 km,

providing opportunities for contact with nature, increased physical activity, reduced stress, and improved health and wellbeing.

- Towns and cities that are greener and more beautiful, attracting inward investment and leading to more prospering communities. Greener offices and business parks that encourage and retain new skilled staff and increase productivity. Greener high streets that 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, helping 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 that insulate buildings and reduce energy use.
- Green infrastructure making a significant contribution to the Nature Recovery Network, especially in urban areas, and contributing to the target of 30% nature rich land cover by 2030.
- More parks, trees and green roofs etc are well managed and maintained for the long term, enabling them to deliver benefits and value for current and future generations.

Appendix 4 – Contributing Contractors

Several universities and environmental consultancies have undertaken contracts to provide evidence reviews and technical development which have contributed the Green Infrastructure Framework – Principles and Standards for England including (in alphabetical order):

- 2Excel Aviation
- ADAS
- Alan Heckman Facilitation and Training
- Alison Smith based at the University of Oxford, Environmental Change Institute
- Birmingham City University
- Brillianto
- BSG Ecology
- eftec
- Idox Software Ltd
- Jacobs
- LDA Design Consulting Ltd
- LIVE Economics Ltd
- Peter Neal Consulting
- The Green Infrastructure Consultancy
- University of Manchester
- Vivid Economics Ltd
- Westcountry Rivers Trust
- WSP UK Ltd

Appendix 5 - Definitions

The definitions below are relevant to this paper. For a full glossary of terms relevant to the Green Infrastructure Framework, please see the [Green Infrastructure Framework website](#).

Accessible Greenspace

Accessible Greenspaces 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). Accessible greenspaces are available to all, meaning that every reasonable effort is made to comply with the requirements of the Equality Act 2020.

Accessible Greenspaces are areas of vegetation set within a landscape or townscape, often include blue space (i.e. lakes, rivers and wetlands). There are a range of types of greenspaces included within the definition of publicly accessible greenspace (shown in the diagram below).

The Green Infrastructure Mapping Database User Guide sets out how Accessible Greenspace has been interpreted in developing the Green Infrastructure Mapping.

Accessible Natural Greenspace

Greenspaces meeting the definitions of accessible greenspace and natural greenspace. The Green Infrastructure Mapping Database User Guide sets out how Accessible Natural Greenspace has been interpreted in developing the Green Infrastructure Mapping.

Benchmarking

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.

Example of a benchmark:

- For local authorities in the top quartile for this indicator, X% of people who have access to good quality parks, green and blue spaces close to home for health and wellbeing, to meet the Accessible Greenspace Standards,

with an initial focus on access to green and blue spaces within 15 minutes' walk from home

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. ([National Planning Policy Framework](#), 2021)

It includes both green and blue infrastructure such as:

- Parks and Gardens – urban parks, country and regional parks, formal gardens
- Amenity Greenspace – informal recreation spaces, housing greenspaces, domestic gardens, village greens, urban commons, other incidental space
- Natural and semi-natural urban greenspaces - woodland and scrub, grassland, heath or moor, wetlands, open and running water, wastelands and disturbed ground
- Green corridors – rivers and canals including their banks, road and rail corridors, green bridges, field margins, cycling routes, pedestrian paths, and rights of way
- Vegetated sustainable drainage systems, (SuDS), (please see definition of SuDs later in this glossary). Includes: green roofs, blue roofs, rainwater harvesting and smart controls, downpipe disconnection planters, rain gardens and biofiltration strips, swales, ponds, detention basins
- Features for species such as bird and bat boxes, swift bricks and hedgehog holes
- Other - street trees, allotments, community gardens and orchards, private gardens, city farms, green walls, cemeteries and churchyards

Green Infrastructure Standards

The Green Infrastructure Standards are the Standards component of the Green Infrastructure Framework. They comprise the 5 Headline Green Infrastructure Standards and the Menu of Green Infrastructure Standards, accompanied by a Signposting Table which includes a wide range of green infrastructure standards, guidance and best practice checklists, matched to the 15 Green Infrastructure Principles and different area types.

Green Infrastructure Framework: the abbreviation for the Green Infrastructure Framework – Principles and Standards for England, which Natural England has developed to fulfil a commitment in the Government’s 25 Year Environment Plan, and which comprises:

- [15 Principles of Green Infrastructure](#)
- An on-line [Green Infrastructure Mapping Database](#) and [User Guide](#)
- A [Green Infrastructure Design Guide](#)
- [Green Infrastructure Process Journeys](#)
- Case Studies
- A Monitoring and Evaluation Plan

Greenspace

There are many definitions of greenspace in use. The definition of greenspace for the Green Infrastructure Framework is as follows:

Greenspace is an area of vegetation that is set within a landscape or townscape. Greenspace can include blue space (i.e. lakes, rivers and wetlands), and may include built environment features.

Greenspace is not necessarily accessible to the public e.g. greenspaces include allotments (that are normally locked and only accessible to key holders), and golf courses (which may require club membership and or payment of a fee to access). Such greenspace has a significant role to play in the overall provision of greenspaces for recreation and enjoyment.

High quality greenspace is designed and managed to deliver its intended functions and to meet defined needs. Greenspace may be urban or rural.

Greenspace Quality

Meeting the needs and 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. The Green Flag Award® is the nationally accepted standard for the management of parks and greenspaces, and other recreational outdoor spaces in England and is included in the Green Infrastructure Framework’s Accessible Greenspace Standards.

Headline Green Infrastructure Standards

These are the top level of standards in the Green Infrastructure Framework and comprise:

- Green Infrastructure Strategy Standard
- Accessible Greenspace Standards
- Urban Nature Recovery Standards
- Urban Greening Factor Standard
- Urban tree canopy Cover Standard

Indicator

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). 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).

Example to illustrate how this definition operates in practice:

% of people who have access to good quality parks, green and blue spaces close to home for health and wellbeing, to meet the Accessible Greenspace Standards, with an initial focus on access to green and blue spaces within 15 minutes’ walk from home.

Natural Greenspace

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. The Green Infrastructure Standards User Guide sets out how has been interpreted within the Green Infrastructure Standards; the Green Infrastructure Mapping User Guide sets out how natural greenspace has been interpreted in the Green Infrastructure Mapping.

Open Space

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.

Standard

'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 standards⁴.

The Green Infrastructure Standards define criteria and attributes for good green infrastructure and how to plan and deliver it. They include criteria/ attributes relating to quantity, size, proximity, capacity, quality, accessibility, type and process (planning and management of green infrastructure), and are designed to be used consistently as a guideline.

Example to illustrate how this definition operates in practice:

Everyone has access to good quality parks, green and blue spaces close to home for health and wellbeing, to meet the Accessible Greenspace Standards, with an initial focus on access to green and blue spaces within 15 minutes' walk from home.

Sustainable Drainage Systems, SuDS

Sustainable drainage systems slow the rate of surface water run-off and improve infiltration, by mimicking natural drainage in both rural and urban areas. This reduces the risk of "flash-flooding" which occurs when rainwater rapidly flows into the public sewerage and drainage systems. SuDS use natural features wherever possible.

Target

A target is a result that you are trying to achieve. ([Collins Dictionary](#)).

Example to illustrate how this definition operates in practice:

The local authority will aim for x% of people to have access to good quality parks, green and blue spaces close to home for health and wellbeing, to meet the Accessible Greenspace Standards, with an initial focus on access to green and blue spaces within 15 minutes' walk from home by 2030, and y% by 2040 and 100% by date z.

Urban

Areas that form settlements with populations of over 10,000 are urban, as defined by the Office for National Statistics. Urban area boundaries are based upon land use. These include suburban areas.

The following Census definitions have been used to define urban for the Green Infrastructure Framework in terms of Geographic Information System information: i.e. the LSOA rural-urban classification dataset (Census 2011) has been used including the following RUC 2011 classifications;

- Urban Major Conurbation.
- Urban Minor Conurbation.
- Urban City and Town.

This created an Urban Mapping Domain of about 25,000 km² across England (approximately 20% of the country).

References

BRITISH STANDARDS INSTITUTION, 2012. Pocket Guide to Standards Development [online]. London: British Standards Institution Available from: <https://www.bsigroup.com/Documents/about-bsi/NSB/BSI-pocket-guide-to-standards-development-UK-EN.pdf> [Accessed 7 January 2023]

CONVENTION ON BIOLOGICAL DIVERSITY, 2010 Aichi Biodiversity Targets [online]. Montreal, Canada: Secretariat of the Convention of Biological Diversity. Available from: <https://www.cbd.int/sp/targets/> [Accessed 7 January 2023]

DEPARTMENT FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS, 2019. Outcome indicator Framework for the 25 Year Environment Plan [online]. London: Defra. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/925779/25-yep-indicators-2019.pdf [Accessed 8 January 2023]

DEPARTMENT FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS, 2022. Local Nature Recovery: more information on how the scheme will work [online]. London: Defra. Available from: <https://www.gov.uk/government/publications/local-nature-recovery-more-information-on-how-the-scheme-will-work/local-nature-recovery-more-information-on-how-the-scheme-will-work> [Accessed 8 January 2023]

DEPARTMENT FOR LEVELLING UP, HOUSING AND COMMUNITIES (DLUHC) and MINISTRY OF HOUSING COMMUNITIES AND LOCAL GOVERNMENT, 2021a. National Model Design Code [online]. England: HM Government. Available from: <https://www.gov.uk/government/publications/national-model-design-code> [Accessed 7 January 2023]

DEPARTMENT FOR LEVELLING UP, HOUSING AND COMMUNITIES (DLUHC) AND MINISTRY OF HOUSING COMMUNITIES AND LOCAL GOVERNMENT (MHCLG), 2021b. National Planning Policy Framework, 20 July 2021. [online] England: HM Government. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPF_July_2021.pdf [Accessed 7 January 2023]

DEPARTMENT FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS (DEFRA) AND NATURAL ENGLAND, 2020. Nature Recovery Network [online]. London: Defra and Natural England. Available from: <https://www.gov.uk/government/publications/nature-recovery-network/nature-recovery-network> [Accessed 8 January 2023]

ELLICOTT, K., 2016. Raising the Standard The Green Flag Award Guidance Manual [online]. Wigan, England: Keep Britain Tidy. Available from: <https://www.greenflagaward.org/media/1019/green-flag-award-guidelines.pdf> [Accessed 7 January 2023]

FIELDS IN TRUST, 2015. Guidance for Outdoor Sport and Play, Beyond the 6 acre Standard [online] England: Fields in Trust. Available from: <https://www.fieldsintrust.org/guidance> [Accessed 7 January 2023]

GRAEFE, A., KUSS, F., and VASKE, J., 1990. Visitor Impact Management: A Review of Research. Washington DC: National Parks and Conservation Association. Cited in VASKE, J., WHITTAKER, D., SHELBY, B., and MANFREDO, M. , 2002. Indicators and Standards: Developing Definitions of Quality. Chapter In book: 2002. Wildlife Viewing in North America: A Management Planning Handbook (pp.143-171). Editor: Michael J. Manfredo. Corvallis, OR: Oregon State University Press. Chapter available from: [\(PDF\) Indicators and Standards: Developing Definitions of Quality \(researchgate.net\)](#) [Accessed 8 January 2023]

HM GOVERNMENT, 2018. A Green Future: Our 25 Year Plan to Improve the Environment [online]. England: HM Government. Available from: [25-year-environment-plan.pdf \(publishing.service.gov.uk\)](#) [Accessed 7 January 2023]

HM GOVERNMENT, 2021. The Environment Act [online]. UK: The Stationery Office. Available from: <https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted> [Accessed 8 January 2023]

LOVELL, R., WHITE, M.P., WHEELER, B., TAYLOR, T., ELLIOTT, L., 2020. A rapid scoping review of health and wellbeing evidence for the Green Infrastructure Standards [online]. European Centre for Environment and Human Health, University of Exeter Medical School. York: Natural England. Available from: <http://publications.naturalengland.org.uk/publication/4799558023643136> [Accessed 7 January 2023]

MINISTRY OF HOUSING COMMUNITIES AND LOCAL GOVERNMENT (MHCLG), 2021. National Design Guide Planning practice guidance for beautiful, enduring and successful places [online]. England: HM Government. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/962113/National_design_guide.pdf [Accessed 7 January 2023]

NATURAL ENGLAND, 2021. The Environmental Benefits from Nature Tool - Beta Test Version (JP038) [online]. York: Natural England. Available from: <http://publications.naturalengland.org.uk/publication/6414097026646016> [Accessed 8 January 2023]

NATURAL ENGLAND, 2022a. Biodiversity Metric 3.1 Auditing and accounting for biodiversity User Guide Natural England Joint Publication JP039 [online]. Available from: <http://publications.naturalengland.org.uk/publication/6049804846366720> [Accessed 8 January 2023]

NATURAL ENGLAND, 2022b. Biodiversity Net Gain - An introduction to the benefits [online]. York: Natural England. Available from: [Biodiversity Net Gain Brochure \(blog.gov.uk\)](#) [Accessed 8 January 2023]

NATURAL ENGLAND, 2023a. Developing a Model Urban Greening Factor for England - Green Infrastructure Standards Framework - Principles and Standards for England [online]. York: Natural England. Available from:
<https://designatedsites.naturalengland.org.uk/GreenInfrastructure/Home.aspx>
[Accessed 9 January 2023]

NATURAL ENGLAND, 2023b. Urban Greening Factor for England Case Studies - Green Infrastructure Standards Framework - Principles and Standards for England [online]. York: Natural England. Available from:
<https://designatedsites.naturalengland.org.uk/GreenInfrastructure/Home.aspx>
[Accessed 9 January 2023]

NATURAL ENGLAND, 2023c. Urban Greening Factor for England Summary Report - Green Infrastructure Standards Framework - Principles and Standards for England [online]. York: Natural England. Available from:
<https://designatedsites.naturalengland.org.uk/GreenInfrastructure/Home.aspx>
[Accessed 9 January 2023]

NATURAL ENGLAND, 2023d. Urban Greening Factor for England User Guide - Green Infrastructure Standards Framework - Principles and Standards for England [online]. York: Natural England. Available from:
<https://designatedsites.naturalengland.org.uk/GreenInfrastructure/Home.aspx>
[Accessed 9 January 2023]

NATURAL ENGLAND, 2023e. Urban Greening Factor for England User Guide Spreadsheet - Green Infrastructure Standards Framework - Principles and Standards for England [online]. York: Natural England. Available from:
<https://designatedsites.naturalengland.org.uk/GreenInfrastructure/Home.aspx>
[Accessed 9 January 2023]

NATURAL ENGLAND, 2023f. Process Journey for Local Planning Authorities - Developing Green Infrastructure Policies and Strategies using the Green Infrastructure Framework- Principles and Standards for England [online]. York: Natural England. Available from:
<https://designatedsites.naturalengland.org.uk/GreenInfrastructure/Home.aspx>
[Accessed 9 January 2023]

OTT, W.R., 1978. Environmental Indices: Theory and Practice. Ann Arbor, USA: Ann Arbor Science Publishers Inc. Cited in VASKE, J., WHITTAKER, D., SHELBY, B., and MANFREDO, M. , 2002. Indicators and Standards: Developing Definitions of Quality. Chapter In book: 2002. Wildlife Viewing in North America: A Management Planning Handbook (pp.143-171). Editors: Michael J. Manfredo Corvallis, OR: Oregon State University Press. Available from:
[\(PDF\) Indicators and Standards: Developing Definitions of Quality \(researchgate.net\)](#)
[Accessed 8 January 2023]

THE SENSORY TRUST, 2020. By All Reasonable Means: Least restrictive access to the outdoors [online]. Commissioned by Natural England in collaboration with Natural

Resources Wales. Cornwall: The Sensory Trust. Available from:
<https://www.sensorytrust.org.uk/uploads/documents/ByAllReasonableMeansEnglandAug2020.pdf> [Accessed 7 January 2023]

UNITED NATIONS, 2015. Sustainable Development Goals [online]. New York, USA: United Nations Department of Economic and Social Affairs. Available from:
https://sdgs.un.org/#goal_section [Accessed 7 January 2023]

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