



**Green Infrastructure
and
Public Open Space
Standards**



Appendix A: Final Version

Harlow Local Development Plan

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1. Purpose of the Green Infrastructure and Public Open Space Supplementary Planning Document

- 1.1. The Green Infrastructure and Public Open Space Standards Supplementary Planning Document (SPD) will replace the Open Spaces, Sport and Recreation SPD, that had been adopted in 2007. It reflects the adoption of the [Harlow Local Development Plan \(HLDP\)](#) in December 2020 and the need to take into account new evidence, best practice and updated legislation that has informed the preparation of new public open space and recreational standards and the need to secure Biodiversity Net Gain (BNG).
- 1.2. This SPD is a material consideration in the determination of planning applications and will also inform pre-application discussions on relevant developments. This document has been prepared in accordance with Regulations 8 and 11 to 16 of the Town and Country Planning (Local Planning) (England) regulations 2012 (as amended).
- 1.3. The SPD provides further guidance in respect of the following four specific HLDP policies. The full text of each of these policies can be found in the Local Plan.

Policy PL8 which sets out requirements for development to incorporate Green Infrastructure and landscaping into new developments.

- 1.4. The Implementation Section of Policy PL8 states that the Design Guide SPD (or any successor document) should be consulted for guidance on appropriate landscaping for development. It also states that a Management Plan may be required with an application to demonstrate how the future maintenance of Green Infrastructure (GI) and landscaping would be undertaken.
- 1.5. This SPD provides further information in respect of how GI can be incorporated into new development proposals.

Policy PL7 which looks to protect and enhance existing trees and hedges and supports the provision of new trees and hedges in development in accordance with set criteria.

- 1.6. The Implementation Section of Policy PL7 provides detail on the types of assessment that may need to be submitted as part of a planning application including an Arboricultural Assessment, Arboricultural Method Statement, a Biodiversity Assessment, tree surveys and Management Plans.
- 1.7. This SPD aims to provide further detail on what these documents should contain and how existing and future trees and hedgerows should be considered as part of new development proposals.

Policy PL9 which ensures development contributes to and enhances biodiversity and geodiversity assets and biodiversity net-gain.

- 1.8. The Implementation Section of Policy PL9 states that the Council may require assessments of biodiversity and geodiversity assets to be submitted with an application which identify impacts of development and any necessary mitigation and/or compensatory measures. It also refers applicants to the [Essex Biodiversity Validation Checklist](#) for information. This SPD aims to set out how BNG will be calculated if required by a development.

Policy L1 which requires major development¹ to provide or upgrade open space, play space, allotments and sport facilities along with ongoing maintenance and management.

- 1.9. The Implementation Section of Policy L1 states that the 2007 Open Space, Sport and Recreation SPD (or its successor) and the Harlow Design Guide SPD will set out the requirements for the provision and design of open space.
- 1.10. Where it can be demonstrated that provision cannot be met on-site, the Green Infrastructure and Public Open Space Standards SPD will also set out the method for calculating off-site contributions for alternative provision as well as commuted sums for management/maintenance.

¹ A definition of Major Development is set out in the HLDP

Objectives of the Green Infrastructure and Public Open Space SPD

1.11. This SPD will help to deliver four of the Council's Corporate Priorities:

- 1) Resilience and Recovery**
- 2) Wellbeing and Social Inclusion;**
- 3) A Clean and Green Environment; and**
- 4) Successful Children and Young People.**

1.12. It is become important, now more than ever, that we protect and provide clean and green spaces and wider Green Infrastructure (GI) for the community to access and use. The 'lockdowns' and other restrictions during the Covid-19 pandemic have highlighted the importance of GI, including people using local GI to exercise; an increase in the use of private gardens to grow vegetables and flowers; the use of spaces for formal and informal sports activities; and families and friends using outdoor, public spaces to meet where Covid-19 restrictions had prohibited indoor meetings. This has, therefore, highlighted the important contribution GI can play now and in the future, in assisting with both physical and mental health. Furthermore GI including biodiversity is crucial in helping to address climate change and improving air quality for communities.

1.13. It is important that existing open spaces which are of value to their local communities, the wider population and wildlife and biodiversity continue to be protected, managed and maintained. It is also important that new developments provide a variety of well-planned, well-sited and well-managed public open spaces to ensure that there is no pressure placed on existing spaces and facilities and to support the communities that will live there.

1.14. Harlow has many green spaces, of varying sizes and functions that together provide a network of GI across the town. These include:

- the Town Park which provides a significant district wide community space with formal play areas, green spaces and opportunities for communities to meet;
- the Green Wedge, Green Finger and Green Belt network which help to connect communities and neighbourhoods within Harlow, whilst also connecting open and green spaces and providing access to the open countryside around the town;
- Parndon Wood Site of Special Scientific Interest and other Local Wildlife Sites and Local Nature Reserves which allow residents to engage with nature and support important habitats within Harlow;

- two Registered Parks and Gardens - the Town Park, and the Gibberd Garden, cultivated by Sir Frederick Gibberd, the masterplanner of Harlow New Town; and
- the River Stort which supports water based biodiversity and provides connections to landscapes further afield including the Lea Valley. This along with other brooks and water bodies in Harlow constitute the Blue Infrastructure (BI) in the town.

1.15. This SPD and the guidance and standards contained within it will help to maintain these spaces and the town's GI and BI network, extend them into new developments and conserve and enhance biodiversity in the town.

1.16. The objectives on the following page have therefore been developed as the basis for the SPD and have informed the development of the subsequent chapters:

Green Infrastructure and Public Open Space SPD Objectives

- (a) to support the implementation of the Harlow Local Development Plan policies relating to open spaces, recreation, Green and Blue Infrastructure and biodiversity
- (b) to meet the open space, sport and recreation needs generated by new development, based on the most up-to-date and locally-justified provision standards
- (c) to protect and enhance the district's Green Infrastructure, Blue Infrastructure and biodiversity including trees, woodland and hedgerows
- (d) to ensure that open space, sport and recreation facilities are of a design which is accessible and inclusive to everyone
- (e) to ensure that appropriate on-site or off-site planning contributions are sought to create or enhance open space, sport and recreation facilities
- (f) to ensure that biodiversity levels are improved in the town through Biodiversity Net Gain (BNG)



2. Document Structure

National and Local Policy Background

2.1. This Chapter provides an overview of the national and local policy context in relation to the provision of public open spaces in new developments, biodiversity, trees and woodlands and GI. It includes information on the Council's Local Plan policies, and other supporting documentation including those prepared by the [Harlow and Gilston Garden Town](#).

Green and Blue Infrastructure Principles

2.2. This Chapter provides overarching principles on Blue and Green Infrastructure for developments in Harlow. It sets out the benefits of providing good GI across Harlow and within new development proposals and how this can be achieved and implemented. The subsequent chapters of the SPD all support the provision of GI.

Biodiversity in new developments including Net Gain

- 2.3 This Chapter provides information on how biodiversity can be delivered through new development proposals. It also sets out how the Council will calculate Biodiversity Net Gain (BNG) in new developments.

Trees, woodland and hedgerows

- 2.4 This Chapter set out further guidance in respect of trees, woodland and hedgerows including their protection and the planting and management of new trees and hedgerows.

Public Open Space Standards

- 2.5 This chapter sets out the different open space typologies in Harlow, their description and function. This includes equipped play areas. It also sets out the standards required for these typologies in new developments, when on-site provision will be expected and the estimated contributions for off-site contributions. It provides information in respect of long-term management and maintenance of these spaces including likely contribution calculations if relevant.

Sporting Facilities

- 2.6 Sporting facilities also contribute towards healthy towns and neighbourhoods and this chapter aims to provide further details about how this can be implemented within new developments using the latest Sports Facilities and Playing Pitches Study.

Design Standards

- 2.7 The design standards set out in this Chapter refer specifically to the provision of open spaces, sport and recreation facilities including any ancillary buildings or facilities which support those uses.

Submission of a Supporting Statement

- 2.8 This chapter provides information as to what will be required with a supporting statement in respect of Green Infrastructure and public open space requirements.

3. National and Local Policy Background

National Planning Policy Framework

- 3.1. The [National Planning Policy Framework \(NPPF\)](#) sets out the Government's planning policies for England and how these should be applied. It provides a framework within which locally-prepared plans for housing and other development can be produced. The NPPF sets out three objectives for delivering sustainable development including a social objective that ensures that places are well-designed, beautiful and safe with accessible services and open spaces that reflect current and future needs and support

health, social and cultural well-being and an environmental objective which seeks to enhance the natural environment and improve biodiversity.

- 3.2. Chapter 8 of the NPPF promotes healthy and safe communities including enabling healthy lifestyles through for example safe and accessible Green Infrastructure (GI), sports facilities and allotments. It notes that access to a network of high quality open spaces and opportunities for sport and physical activity is important for the health and well-being of communities, can deliver wider benefits for nature and support efforts to address climate change. It states that planning policies should be based on robust and up-to-date assessments for open space, sport and recreation including quantitative or qualitative deficits or surpluses, and opportunities for new provision. Information gained from the assessments should be used to determine what open space, sport and recreational provision is needed which plans should then seek to accommodate.
- 3.3. Chapter 12 of the NPPF sets out to achieve well-designed places considering the National Design Guide and Design Codes. Developments should be visually attractive, sensitive of the local character, support local facilities and transport networks and be safe, inclusive and accessible.
- 3.4. Paragraph 131 specifically highlights the important contribution that trees can make towards the character and quality of urban environments, whilst also helping to mitigate and adapt to climate change. Policies should create tree-lined streets and measures must be put in place which secures long term maintenance of newly-planted trees and that existing trees are retained and protected wherever possible. Paragraph 180 of the NPPF also states that the loss of ancient woodland or ancient or veteran trees should be refused (unless there are wholly exceptional reasons and a suitable compensation strategy).
- 3.5. Chapter 15 of the NPPF seeks to conserve and enhance the natural environment and states that policies should protect and enhance valued landscapes and sites of biodiversity and minimise impacts on and provide net gains for biodiversity, including by establishing coherent ecological networks. It also states that Plans should not only identify, map and safeguard components of local wildlife-rich habitats, as the HLDP has done, but should also identify and pursue opportunities for securing measurable net gains for biodiversity.

National Planning Practice Guidance

- 3.6. The [National Planning Practice Guidance \(NPPG\)](#) provides further detailed national planning guidance. It highlights the importance of open spaces and GI for a community. It states that this can help attract businesses by providing high quality

environments, can reinforce local landscape character by contributing to a sense of place, improve well-being through recreation, social interaction and exercise, contribute towards mitigating climate change and flooding and facilitate Biodiversity Net Gain (BNG) and ecological networks.

- 3.7. The NPPG states that GI opportunities and requirements need to be considered at the earliest stages of development proposals, as an integral part of development and infrastructure provision, taking into account existing natural assets and the most suitable locations and types of new provision.
- 3.8. In respect of BNG the NPPG describes it as an approach to development that leaves the natural environment in a measurably better state than it was beforehand and that net gain should be considered as an umbrella term for both BNG and wider environmental net gain. BNG delivers measurable improvements for biodiversity by creating or enhancing habitats in association with development. It can be achieved on-site, off-site or through a combination of both. Care needs to be taken to ensure that any benefits promised will lead to genuine and demonstrable gains for biodiversity. The NPPG provides more guidance in respect of BNG which applicants should consider along with this SPD.
- 3.9. In respect of trees and woodland, the NPPG states that well-placed and well-chosen trees on streets and in urban spaces can provide a range of benefits: encouraging walking and enhanced physical and mental health; contributing to local environmental character and distinctiveness; providing habitats for wildlife; reducing noise and excessive heat; and supporting sustainable drainage. Trees of the right species and age profile are essential in order to mitigate climate change issues and, in the cases of street trees, they must be able to suit highway environments.

Environment Act 2021

3.10. The Environment Act (2021) sets statutory targets for the recovery of the natural world in four priority areas: air quality, biodiversity, water and waste, and includes an important new target to reverse the decline in species abundance by the end of 2030. It sets in law new tools to help meet those targets. In respect of biodiversity the Environment Act includes:

- Strengthened biodiversity duty
- Biodiversity net gain to ensure developments deliver at least 10% increase in biodiversity
- Local Nature Recovery Strategies to support a Nature Recovery Network
- Duty upon Local Authorities to consult on street tree felling
- Strengthening of woodland protection enforcement measures

- Conservation Covenants
- Protected Site Strategies and Species Conservation Strategies to support the design and delivery of strategic approaches to deliver better outcomes for nature

3.11. The Environment Act also establishes the Office for Environment Protection as a new regulatory body for legislative enforcement regarding environmental issues.

Harlow Local Development Plan

3.12. The [Harlow Local Development Plan \(HLDP\)](#) sets out the long-term planning vision for the district and guides future development across Harlow to 2033. It includes a number of policies and sites, allocations for specific uses and land designations such as local wildlife sites.

3.13. As part of the overall vision, the HLDP states that by 2033 the overall health and well-being of Harlow's residents will be improved by taking advantage of excellent sporting, leisure and cultural facilities. The district's GI, including green and open spaces will be of consistently high quality, better connected to residential areas and will provide multifunctional opportunities for residents and wildlife. This vision helped to develop two specific objectives in the HLDP: 1) Create and enhance high quality built environments which are well connected to revitalise green spaces; and 2) Provide and enhance sporting, leisure, recreational facilities and cultural opportunities in the district.

3.14. Chapter 10 of the HLDP sets out the strategic policies in respect of GI in Harlow including Policy WE2 which covers Green Belt, Green Wedges and Green Fingers and Policy WE3 which covers the protection and management of biodiversity and geodiversity assets. These overarching policies are supported by more specific development management policies for applications that may include or impact, either positively or negatively upon GI, landscaping, trees and hedgerows and open spaces. The development management policies also ensure appropriate provision and protection of recreational, sporting, cultural and community facilities, play areas and allotments.

3.15. This SPD provides further detailed guidance in respect of these development management policies to ensure that their implementation is understood.

Harlow Design Guide (2011) and Addendum (2021)

3.16. The [Harlow Design Guide and addendum](#) aim to provide general guidance on the form that new development should take. This addresses a range of development types from new urban areas through to residential extensions. It also covers the design of

employment areas and strategic and local green spaces. A separate addendum to the Design Guide prepared in 2021 provides additional guidance in respect of private amenity spaces and garden spaces.

- 3.17. The Design Guide includes a section on strategic open space and provides guidance on how to implement the existing GI of Harlow into new developments and how to manage the interrelationship of development with the rural countryside that surrounds the district. The Design Guide also provides guidance on how local open spaces and play spaces could be developed taking into account their function, context, location and size. Applicants should consider both the Design Guide SPD and the Addendum SPD when designing and planning new open spaces within their developments including the provision of private amenity space standards such as private residential gardens and communal areas. The Design Guide and addendum is due to be superseded by a new Design Guide before 2023.
- 3.18. A [Masterplan Supplementary Planning Document](#) for the Town Centre has also being developed which includes public realm guidance and a more detailed GI Framework. Proposals for the Town Centre should also make reference to this document when considering GI within their developments.

Harlow Climate Change Strategy

- 3.19. In July 2019 Harlow Council declared a climate change emergency and subsequently agreed to set a target of achieving Net Zero by 2040. A Climate Change Strategy for the town as a whole is now being developed which will set out how the Council can achieve Net Zero through its own operations and how it can influence the wider community and local economy to deliver quantifiable reductions in emissions for the town. The Climate Change Strategy will outline achievable targets, identify aspects that are unquantifiable as yet and highlight areas where further support and influence is required to help deliver the Net Zero targets.
- 3.20. An initial Position Statement, setting out seven key objectives relating to achieving Net Zero, is to be agreed and will be a key step in developing the Climate Change Strategy. It recognises the importance of GI, open spaces and biodiversity in mitigating climate change and supports the requirements set out in this SPD. It is expected that the full Climate Change Strategy will be agreed in 2022.

Sport Facilities and Playing Pitches Study (2017)

3.21. The Council's Sports Facilities and Playing Pitches Study considers the demand and supply of facilities across Harlow and wider Garden Town area, identifying the facilities that will be required to deliver the growth in the Town. Part 1 of the study looks at the needs for built facilities such as sports halls, gyms, indoor tennis as well as outdoor sports such as golf, netball and athletics. Part 2 of the study focusses on playing pitch requirements including grass and artificial pitches for sports such as football, hockey or rugby. The findings of this study have informed the HLDP and this SPD including the tools for determining quantity standards, projects and identified needs and calculations for contributions

Harlow Open Space and Green Infrastructure Study (2013)

3.22. The Open Space and GI Study assesses the quantity, quality and value of the open space and GI in Harlow. This study includes locally-derived standards for the provision of open space and recreational facilities in the area and has been used to inform the open space typologies and standards in this SPD.

Harlow and Gilston Garden Town

3.23. Harlow forms part of the [Harlow and Gilston Garden Town \(HGGT\)](#) which comprises new and existing communities in and around Harlow. Set in attractive countryside, with transformative investment in transport and community infrastructure, new Garden Communities to the east, west and south and new villages to the north will be established. The partnership authorities of Harlow, East Hertfordshire and Epping Forest District Councils and Hertfordshire and Essex County Councils are working together to deliver the vision for the HGGT.

3.24. This [HGGT vision](#), amongst a range of things, will ensure that the Garden Town includes GI that supports a variety of uses, has spaces for food production, provides a good range of active leisure facilities and is biodiverse. At the heart of the vision is the necessity for long term management and stewardship of facilities/spaces in order for them to remain sustainable. The vision sets out overarching principles for the delivery of the HGGT, including spatial considerations for landscaping, GI and biodiversity. These principles have been considered as part of the development of this SPD. The Vision was endorsed by Harlow Council as a material consideration.

3.25. The [HGGT Design Guide](#) supports the HGGT Vision and sets out the expectations and aspirations for the delivery of high quality and sustainable developments in the Garden Town. The Design Guide is aimed at those involved in the delivery of developments within the Garden Town, including in the context of the growth and regeneration of

the new Garden Communities and Harlow Town Centre. The Design Guide was endorsed by Harlow Council as a material consideration.

- 3.26. The HGGT has also developed a [Sustainability Guidance and Checklist](#). The guidance provides practical and technical guidance on how to apply sustainability indicators and policies into new major developments in the Garden Town. This will help applicants meet the Garden Town goals of becoming net zero-carbon by 2030, and, to build strong and integrated communities across new and existing places.

Emerging Essex GI Standards and Essex GI Strategy

- 3.27. Essex County Council, the University of East Anglian, Northumbria University and Environment Agency trialled Natural England's National Green Infrastructure Standards Framework (NGISF) from September 2020 to February 2021. As a result of Essex taking part in the trials, a draft [Essex Green Infrastructure \(GI\) Standards](#) was produced alongside supporting guidance. Consultation on the proposed standards was undertaken in 2021 in order to gain an understanding as to whether the standards could be supported, implemented and monitored or just act as supporting guidance.
- 3.28. The Essex standards have nine Principles of Good GI, as well as identifying target measures and indicators to achieve quality and consistency in the provision, management, and stewardship of GI as an essential part of place-making and place-keeping for the benefit of people and wildlife. This includes supporting existing standards, such as Building with Nature, Livewell Development Accreditation, and Accessible Natural Greenspace Standard. These standards will have supporting tools and will help to strengthen GI policies, Local Plans and other strategic documents and embed GI into the Essex planning system and decision-making.
- 3.29. Essex County Council has also prepared a GI Strategy for the County. Its purpose is to take a positive approach to enhance, protect and create an inclusive and integrated network of high-quality green infrastructure, to create a county-wide understanding of green infrastructure – its functions and values, and to identify opportunities for delivering green infrastructure. The aim is to guide and shape planning and other services through setting principles that can inform plans and strategies that will enable a coherent approach and partner collaboration in the delivery and long-term management of multi-functional natural assets, which will provide environmental, social and economic benefits for Essex.

4. Green and Blue Infrastructure Principles

- 4.1. Green Infrastructure (GI) is a key mechanism for delivering sustainable communities and quality of life benefits within growth areas. Having different types of GI as well as Blue Infrastructure (BI) close to people's homes, places of work or education, or along transportation routes is likely to maximise the potential ways in which people benefit. **This SPD expects all development proposals to have considered and provided some form of GI.** The box below explains what GI and BI is.

Information Box 1: What is Green and Blue Infrastructure?

The Town and Country Planning Association describe Green Infrastructure as: 'a network of multi-functional green space and other green features, urban and rural, which can deliver quality of life and environmental benefits for communities. It is not

simply an alternative description for conventional open space. It includes parks, open spaces, playing fields, woodlands – and also street trees, allotments, private gardens, green roofs and walls, sustainable drainage systems (SuDS) and soils. It includes rivers, streams, canals and other water bodies, sometimes called ‘blue infrastructure’.

- 4.2. GI and BI can help to tackle climate change by reducing carbon dioxide and air pollution through for example the use of tree planting, rain gardens and urban drainage systems. It can protect and enhance biodiversity and geodiversity assets and provide spaces for both formal and informal recreation such as sports pitches, allotments, amenity spaces and private garden space. GI can also assist in providing cooling and shading to reduce air temperature in hot weather.
- 4.3. Much of the GI in Harlow is a legacy of Sir Frederick Gibberd’s original masterplan and provides the overarching and distinctive green character of the district. The HLDP policies aim to continue this legacy by seeking opportunities to enhance the district’s Green Wedges, Green Fingers, other open spaces, Green Belt and the River Stort and protect them from inappropriate development. Policies also state that new GI must be planned into new developments regardless of scale, and where possible link to the district’s existing GI. Landscaping, trees and hedgerows will also be protected and enhanced (see Chapter 6).

Planning Green and Blue Infrastructure in new developments

- 4.4. New development should be landscape-led from the start, and GI should be high quality and multifunctional, i.e. provides movement and ecological connectivity, addresses social and wellbeing needs, provides opportunities for play, water space through appropriate Blue Infrastructure such as drainage systems, swales and other water features and carbon mitigation measures.
- 4.5. Applicants should firstly identify the characteristics of both GI and BI within or close to the site such as existing parks and open spaces, the Green Wedge/Finger network, Local Wildlife Sites, Local Nature Reserves, water courses, streams or the River Stort or areas of particular biodiversity and geodiversity. Applicants should consider the standards set out within this SPD and the expected development needs. For example this could include sustainable drainage systems (SuDS), flood alleviation, sports pitches, allotments or play areas. Applicants should then investigate opportunities for delivering GI and BI benefits such as trees and landscaping, linking spaces through cycle paths, footpaths or bridleways, improvements to biodiversity, mitigating climate

change, provision of sporting facilities or the general appearance and setting of the scheme.

National Model
Design Code
(Biodiversity
Design Principles)



- 4.6. For developments which abut or are within close proximity of water courses, an 8 metre buffer must be applied as per Policy PL11 of the HLDP. River corridors and the adjacent buffer zones are particularly effective habitat corridors and such networks may also help wildlife adapt to climate change and protect and improve water quality. A 5m buffer zone for ponds would also help to protect their value for wildlife and ensure that the value of the adjacent terrestrial habitat is preserved.
- 4.7. Applicants should also consider opportunities which enhance and restore rivers and water courses in Harlow, for both biodiversity improvement and natural methods of flood risk management and improvements to water quality. The enhancement of river habitat and river restoration should be seen as a matter of course where development is proposed adjacent to rivers/water bodies. Any development adjacent to water courses should seek to provide soft engineering options, actively reconnect rivers with floodplains to resilience against climate change and enhancement habitat, de-culvert river channels, mitigate any loss of biodiversity and improve the quality of channel and buffer zone habitats.
- 4.8. Table 1 below provides examples of how GI could be implemented as part of a GI Strategy for new development proposals and should be considered as a useful guide for applicants.

Table 1: Green Infrastructure considerations in new developments

GI benefits	Examples of how this could be implemented
Does the GI connect green spaces and routes?	<ul style="list-style-type: none"> • Physical connections • Visual connections • Pleasant and safe pedestrian, cycle and bridleway routes • Improvements to rights of way network • Consideration and improvement of radial routes • Use of shared space • Tree lined streets • Multi-function streets • Landscape buffer zones • Provision of a linear park
Does it improve the setting and quality of a place?	<ul style="list-style-type: none"> • Increasing social gathering spaces • Enhancing landscape setting • Responding to the site context and local landscape character • Providing street trees • Drawing up a maintenance/management plan for long term success of scheme
Does it encourage activity and enjoyment and improve health and wellbeing?	<ul style="list-style-type: none"> • Providing places for meeting and events such as a community park • Providing shelter • Providing areas for play in a natural setting • Education and interpretation opportunities • Sports facilities • Seating • Cycle storage
Will it assist in adapting to changes in climate and mitigating flood risk?	<ul style="list-style-type: none"> • Flood mitigation measures and sustainable drainage systems such as wetlands, green swales, balancing ponds, ditches and ponds • Tree planting • Green roofs and walls • Ground cover plants on steep slopes to reduce run off and erosion • Permeable surfaces and paving • Soakaways as an alternative method of water retention • Reedbeds and rainwater harvesting system • Use of GI to lower high air temperatures in hot weather
Will it help support growing local food?	<ul style="list-style-type: none"> • Allotments and community orchards • Schools and food projects
Does it protect and enhance heritage and nature?	<ul style="list-style-type: none"> • Development relates to local character and safeguarding of existing views • Good integration of existing and proposed features • Opportunities to create new views and vistas • Protection and enhancement of key priority habitats and species • Alleviate pressure on existing sensitive wildlife sites through provision of alternative access to nature

- Improvement of species movement
- Community involvement and participation in habitat creation and on-going maintenance and management
- Design planting areas to create benefits for the microclimate and to minimise maintenance requirements
- Undertake soil survey to allow for planting of appropriate, non-invasive species.

4.9. In addition to the table above, applicants may also want to consider other tools when developing GI including the Natural Capital Tool, Ecometric, Green Flag Award and in particular the Building With Nature Standards (BwN) Framework advocated by the Essex Design Guide.

Building with Nature Standards Framework

4.10. [The BwN Standards Framework](#) can be used to assess development and policy across the country. It is designed to be applicable to a wide range of types and scales of development and policy areas, from small infill projects to major urban extensions and new settlements. In order to secure the range of benefits associated with high quality GI, it is essential that it is integrated into project development as early as possible. To help secure high-quality GI in development, Building with Nature have also developed an accreditation system which applicants can apply for.

4.11. The BwN Framework is not a policy requirement for developments however the Council strongly advises applicants to consider the principles and standards included within it as part of their development proposals. They are summarised in Appendix 3.

Community Engagement and Inclusivity

4.12. Greenspace should be designed for a variety of user interests and capabilities. Engaging the community in the design process is important. Often small details can make a big difference to those with health or mobility needs, and these groups can provide valuable insights that might be overlooked by those not directly affected. These groups will also be able to advise on what is needed to enhance the potential for social interactions within the space. Community insight can improve opportunities for future engagement and help in the delivery of any interventions. The Commission for Architecture and the Built Environment (CABE) developed five principles of inclusive design which can be found below. Designing spaces according to these principles will help all people to be able to participate and experience a place equally and with confidence.

Information Box 2: CABE's Principles of Inclusive Design

- 1. place people at the heart of the design process – involve as many people as possible in the design so that it meets the local needs and promotes social cohesion**
- 2. acknowledge diversity and difference – understand the range of needs and design to overcome barriers**
- 3. offer choice, rather than a single design solution that cannot accommodate all users – it's not possible to meet every need, but provide solutions that welcome everyone on equal terms**
- 4. provide for flexibility in use – understand how the space will be used, and ensure it is adaptable according to changing needs**
- 5. provide environments that are convenient and enjoyable to use for everyone – ensure people have appropriate signage, lighting, walkways, transport routes, and can access sufficient information to make them feel confident using the space**

Wider Garden Town Considerations

4.13. Applicants should also make reference the principles set out in the HGGT Vision in relation to GI, landscape led masterplanning, biodiversity, climate resilience and food production. Amongst other masterplan and design principles the Vision includes the following GI related values.

Information Box 3: HGGT Vision Principles relating to GI

- masterplans will identify and design open space that expands the existing Green Wedge network across the Garden Town and connects out to the wider countryside and Stort Valley.**
- new development that adjoins the Green Wedge network will enhance the quality and recreational value of Green Wedges and Green Fingers**
- new Green Wedges will be an appropriate size and character to maintain the individual identity of new and existing neighbourhoods and villages.**
- Green Fingers running through residential areas will be multi-functional spaces, accommodating play areas, a local park or village green.**
- new neighbourhood development will have a positive relationship with the enhanced Green Wedge network with front doors and windows facing onto green spaces where appropriate.**
- Green Wedges between villages will be rural in character using farmland and woodland to reinforce the separation of development and maintain existing village ways of life.**
- the open space network will support active lifestyles and good health**

through excellent walking and cycling routes, connecting all parts of the Garden Town and the wider countryside.

- new development should identify appropriate locations for playing fields, adventure spaces, play areas, running trails and bridleways to support new and existing residents.**
- the long-term maintenance and stewardship of open spaces will be secured; committed to achieving high quality such as the Green Flag standard for local parks and green spaces.**

4.14. HGGT partners have also developed a [Sustainability Guidance and Checklist](#). The guidance provides practical and technical guidance on how to apply sustainability indicators and policies (environmental, social, and economic) in the HGGT Vision and partner authorities Plans to new major developments in the Garden Town. This will help applicants meet the Garden Town and Councils goals of becoming net zero and, to build strong and integrated communities across new and existing places.

4.15. The Guidance includes a section on GI which applicants should consider as part of their proposals and wider GI strategy.

5. Biodiversity in new developments including Net Gain

- 5.1. Despite Harlow being relatively intensely developed there are a number of sites in the area that are rich in biodiversity and provide a range of habitat that encourage a diverse mix of species. Some sites inherited something of the diversity that depended on traditional land uses, such as meadow land or ancient woodland. There is also a great deal of open space in the district in parks, Greens Fingers and Wedges plus the River Stort and its surrounding marsh land which supports a variety of flora and fauna. There are opportunities through development and enhancement to manage this land to improve biodiversity.

- 5.2. Much of the open space in Harlow is laid to grass, but does not have the same biodiversity as recognised wildlife sites due to them being regularly mown short. However the district's Sites of Special Scientific Interest at Parndon Wood and Hospital and Risdens Wood in the south-west of Harlow provide habitat for a variety of species, Parndon Wood being managed as a Nature Reserve. This ancient woodland consists of mature hornbeam coppice and oak. There are also a number of Local Wildlife Sites in Harlow which provide mostly protected flora.



- 5.3. There are some other notable areas of natural open space in Harlow which continue to be protected and where necessary improved by the Council. This includes Oakwood Pond which has been restored, Maund's Wood, Hawkenbury meadow and in particular Jean McAlpine Park where the retention of existing trees and hedgerows and a new selection of plants have complimented and enhanced biodiversity. These areas provide a variety of habitats through a mix of native trees, denser woodlands, neutral grasslands and wildflowers and meadows.
- 5.4. There are also several marshes along the River Stort which provide habitats for wetland birds such as water rail, heron, moorhen and kingfisher and insects such as spiders and dragonfly, wetland plants and even rare species such as desmoulin's whorl snail and black poplar.
- 5.5. Parndon Moat Marsh is a Scheduled Ancient Monument and its rich nutrient soils encourage nettles to grow whereas its drier banks encourage wildflowers. Maymead Marsh features a large pond and reedbeds and over 100 species of bird species have been recorded there. Marshgate Spring also provides a network of ditches which support a variety of bird species.

Biodiversity in new developments

- 5.6. **Applicants of all types of new development should consider how they can protect and enhance local biodiversity and nature** through the use of planting, landscaping, habitat creation such as bird and bat boxes, water features or just by simply retaining and improving what already exists. Biodiversity and measures which maintain and improve ecology should be considered at the earliest stages of planning new developments to encourage wildlife and help reverse habitat decline. Nature adds character and quality of place and helps improve the liveability of that place.
- 5.7. Existing natural features retained within the development footprint, be they veteran trees, old hedgerows, or ponds provide a context and character for the development. Incorporating them into a landscape scheme ensures continuity of that character. At the same time, doing so ensures more opportunities for wildlife than if starting from scratch, and provides enjoyable recreational space, through which the value of homes can be increased.

Information Box 4: Enhancing biodiversity and improving ecology

Biodiversity is a term which describes every living organism within a single ecosystem or habitat, including numbers and diversity of species whereas ecology deals with the relationships of organisms with their environment or ecosystem. The preservation and enhancement of ecosystems can make huge differences in increasing biodiversity. Conversely small changes to ecosystems can have catastrophic impacts on the preservation and diversity of living species.

- 5.8. Table 2 below provides examples of how biodiversity can be created and enhanced in new developments. Applicants may also wish to consider the [NHBC, Barrett Homes and RSPB 2021 publication 'Biodiversity in new housing developments: creating wildlife-friendly communities'](#) which is a helpful guide.

Table 2: Examples of Biodiversity in new developments

Boundaries and buffers

New boundary and buffer features, including hedgerows, drystone walls and verges should be designed to maximise wildlife value by forming connective corridors so that, as well as providing food and shelter, they enable wildlife to move to occupy new habitats. Meanwhile, vegetation contributes to climate resilience, especially when incorporated into SuDS.

Drainage systems and water features

Drainage Systems mimic natural processes in managing rainfall using landscape form and vegetation such as trees, shrubs, flowering plants and grassland. They can be designed and landscaped to increase opportunities for wetland wildlife in urban areas and links to the wider landscape, e.g. swales may be improved for invertebrates and amphibians.

Planting and landscaping

The careful use of planting in a landscape design creates opportunities to increase value for wildlife. Structural landscaping and tree planting within developments should consider location, density and species mix to attract a variety of wildlife.

Structures, buildings and materials

Opportunities can be sought to reuse materials to provide new habitats such as through site clearance. Consideration of bringing habitats and wildlife into the built elements of a scheme can support multiuse of such structures, e.g. green walls (or planting within walls), green roofs, bat friendly areas/roof bricks close to buildings.

- 5.9. These are just some of the ways development can introduce and support wildlife and local biodiversity. It is important that applicants set out in a **supporting statement how they have considered protecting, enhancing and supporting biodiversity and geodiversity** within their development proposals as per Policy PL9 of the HLDP.
- 5.10. Applicants should also make use of the [Essex Biodiversity Validation Checklist](#) to support their submission.

Biodiversity Net Gain (BNG)

- 5.11. Where appropriate, Biodiversity Net Gain (BNG) may be required as part of a development proposal. BNG in planning terms is an approach to development that aims to leave biodiversity in a better state than beforehand. The planning system already seeks to minimise impacts on and secure improvements to biodiversity, but the Environment Act (forms part of a new legal framework for environmental protection)

places BNG on a statutory footing, introducing a **mandatory requirement for developments to demonstrate a measurable 10% increase in biodiversity.**

Information Box 5: What is Biodiversity Net Gain?

Biodiversity Net Gain is an approach to development that leaves biodiversity in a better state than before. Where a development has an impact on biodiversity it encourages developers to provide an increase in appropriate natural habitat and ecological features over and above that being affected in such a way it is hoped that the current loss of biodiversity through development will be halted and ecological networks can be restored.

- 5.12. Achieving net gains for biodiversity rather than just stemming further losses is essential to counteract its long term decline. Net gain for biodiversity is achieved by land management practices or 'interventions' that deliver more or better habitat for biodiversity through habitat creation or enhancement on an identified piece of land. Improvements could arise from the way the land is managed, for example maintaining natural wildflower areas in public parks, or through the provision of additional habitat such as ponds, hedgerows or woodland.
- 5.13. Biodiversity improvements can be delivered on-site which is the preferred approach, through a combination of on-site and off-site measures, or in some circumstances entirely off-site or through a credit scheme where developers pay a levy or tariff for habitat creation or improvement elsewhere. This is considered to be a last resort and applicants must demonstrate why this is the only solution left available.

Using a Biodiversity Metric to measure BNG

- 5.14. For the purposes of justifying a measureable net-gain in biodiversity **this SPD advocates the use of the Biodiversity Metric 3.0 tool** (or any successor Metric which may be released and supported by the Council). **This should be used for development proposals of a certain size as detailed in the Information Box below.**

Information Box 6: Developments which should apply the Biodiversity Net Gain Metric

- (a) The provision of ten or more dwellinghouses, or where the number of dwellinghouses is unknown, the site area is 0.5 hectares or more;
- (b) All other development types where the site area is more than 0.5 hectares or where floorspace to be built is more than 5,000 sqm

- 5.15. In order to demonstrate that the mandatory requirement of a 10% increase in biodiversity is delivered, biodiversity losses and gains associated with development and land management practices must be measured in a consistent, robust, and transparent way. The Biodiversity Metric 3.0 is a spreadsheet-based tool designed to measure biodiversity losses and gains using habitat as a proxy for biodiversity. The Environment Bill specifies that this metric (or any successor) must be used by developers to demonstrate how they will meet their requirement to deliver minimum 10% BNG. However applicants should also consider the character of the landscape, the local context, whether their enhancements adds value to the area and provides mitigation for required species and benefits the local community.
- 5.16. Biodiversity losses and gains are calculated through the assessment of habitat and its quality. The metric quantifies the existing biodiversity value of habitats on a piece of land, and then calculates the losses and gains in biodiversity associated with a proposed development and any related habitat creation, restoration or enhancement. Information from habitat surveys of the site before development, and for habitats proposed within the development plus any off-site habitat improvement, is used to populate the metric spreadsheets.
- 5.17. The metric translates the habitat distinctiveness, condition, size and strategic importance into a score, which is then converted into measureable biodiversity units.
- 5.18. To achieve net gain, a development must have a higher biodiversity unit score after development than beforehand. The stages below broadly outline the process that must be undertaken to determine the percentage of biodiversity net gain. Applicants should visit [Natural England's website](#) for further details on the Metric including the calculation tool itself and useful user guides.

Stage 1: Baseline for Assessing BNG

- 5.19. The existing biodiversity value of a development site or 'baseline' is assessed at the point that planning permission is applied for, although if any harm to this biodiversity value has taken place since January 2020 (for example through hedge or tree removal), this would need to be accounted for to ensure that proposals achieve genuine BNG.
- 5.20. The site is surveyed, mapped and divided into parcels of distinct habitat types present using either of the recognised 'Phase 1' or the new 'UKHAB' habitat classification systems. All surfaces present including built surfaces are included. The biodiversity 'value' of a habitat parcel is evaluated on the basis of its area in hectares and the relative quality of its habitat. Quality is determined by three components:

- **Distinctiveness:** A score based on the type of habitat present. Habitats are assigned to 'distinctiveness' bands based on an assessment of their features including species richness, rarity (at local, regional, national and international level), and the degree to which a habitat supports species rarely found in other habitats. The distinctiveness band of each habitat is pre-assigned based on whether the habitat is of high (e.g. native broadleaf woodland) or low (e.g. improved/amenity grassland) value to wildlife.
- **Condition:** Based on the quality of the habitat, whether the habitat is a good example of its type. For example whether a woodland is in peak condition (which might mean it can better support rare species) or whether it predominantly contains invasive species or is overcrowded and under stress.
- **Strategic significance:** Strategic significance relates to a landscape scale approach based on whether the location of the development and/or off-site work has been identified locally as significant for nature.

5.21. The metric operates by applying a score to each of these elements for a habitat parcel. A calculation using the scores and the area of the habitat gives a number of biodiversity units that represents the biodiversity value of that habitat parcel. The initial calculation determines the 'baseline' value in biodiversity units.

Stage 2: Post-Development Calculation of BNG

5.22. The process is repeated using a 'post development' scenario to account for the impact of the development including any on site measures to retain, enhance or create biodiversity. Additional factors to account for the risk associated with the creation, restoration or enhancement of habitats are incorporated within the metric:

- **Difficulty of creating or restoring a habitat:** This component recognises the difficulties in creating or restoring some habitat types, and the related uncertainty of the outcome this creates. Uncertainty in achieving the target outcome for each habitat is addressed by a habitat-specific 'difficulty' multiplier.
- **Temporal risk:** If there is a gap between a negative impact on biodiversity and compensation habitat reaching the required quality or level of maturity, there will be a loss of biodiversity for a period of time. This issue can be managed by the creation of compensation habitat ahead of the impact taking place. Even where the management to create compensation habitat starts in advance, the time taken for habitats to mature means that there is almost always a time lag. Where a time lag

occurs, a 'Time to target condition' multiplier is applied to take account of it.

- **Spatial Risk:** This component reflects the fact that habitat created at a great distance from the site of habitat losses carries a risk of depleting local areas of natural habitats, and of depriving communities experiencing development of the associated benefits. The multiplier should be applied as a rule but with the discretion of the Council (for example, where a development creates compensatory habitat locally, but technically in a separate planning area).

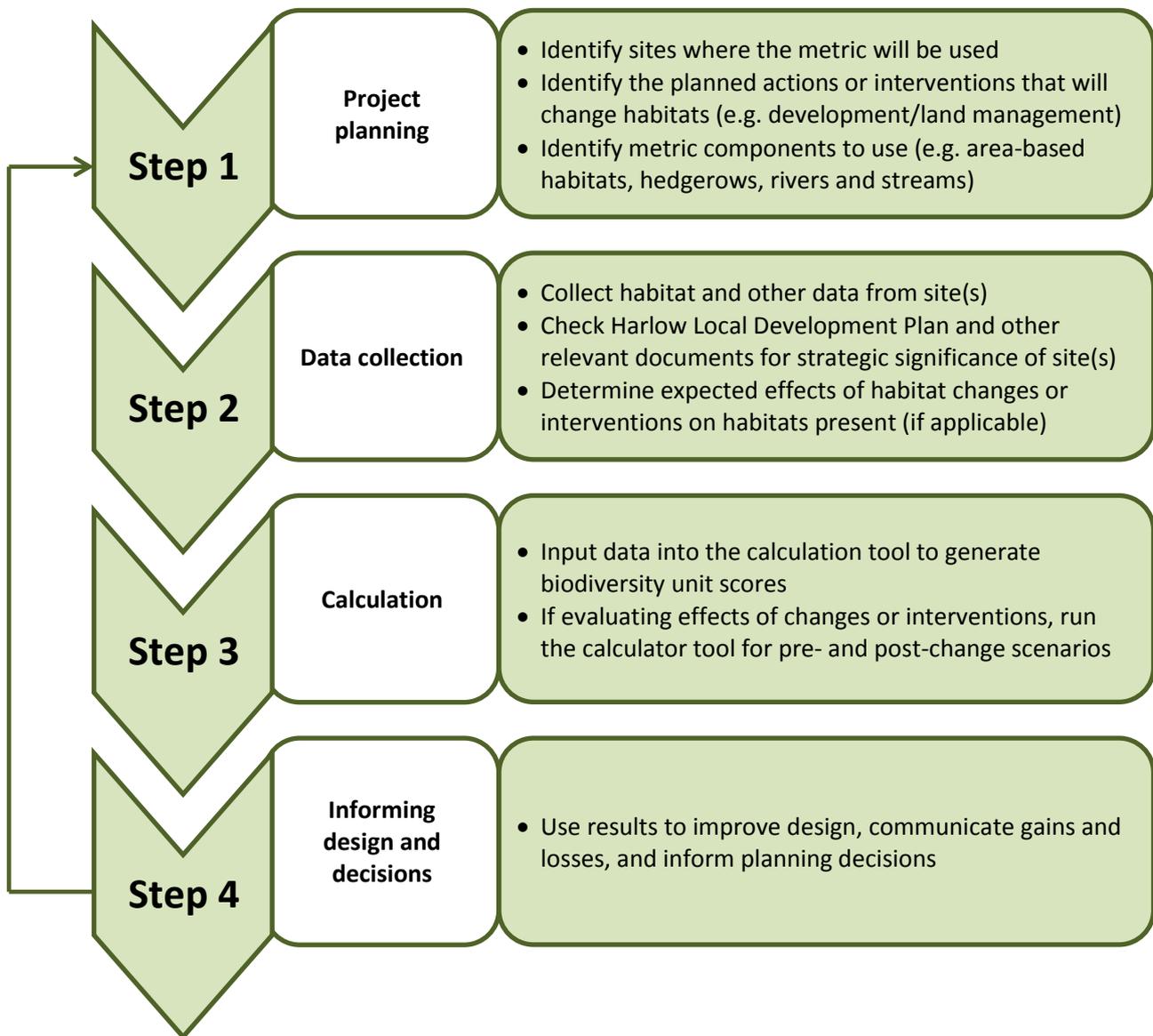
5.23. The value of biodiversity units 'post development' is deducted from the baseline value to quantify the extent of change. If net gain can be achieved on site there is no need to consider off site measures.

5.24. If the calculation does not result in a sufficient net gain in biodiversity units the development proposal can be revisited to improve the number of biodiversity units obtained or, if there is no scope for additional on-site compensation or enhancement, off-site measures will need to be considered.

5.25. New or restored habitats should result in an improvement in the extent or quality of the habitat affected. They should achieve a higher distinctiveness and/or condition than those lost. Compensation measures should not result in "trading down", for instance in the replacement of a habitat of high distinctiveness with creation or restoration of a greater amount of habitat of a lower distinctiveness. Losses of habitat of a high distinctiveness are expected to be compensated on a "like for like" basis.

5.26. An example of a BNG calculation can be found in Appendix 4.

Image 1: Four step process to using the Biodiversity Metric



Off-site measures and biodiversity credits

5.27. If off site measures are required, the same assessment process has to be undertaken to establish biodiversity unit values on the offsite land 'pre intervention' and 'post intervention' to calculate how many units that land can contribute as compensation. The change in biodiversity units on site is then added to the change in units off site to provide a total change in biodiversity units for the development. The total change in units needs to be sufficient to ensure a 'Net Gain' is achieved.

5.28. Where off-site measures are needed to meet the 10% biodiversity net gain uplift requirement, it is expected that the off-site habitat enhancement or creation will be

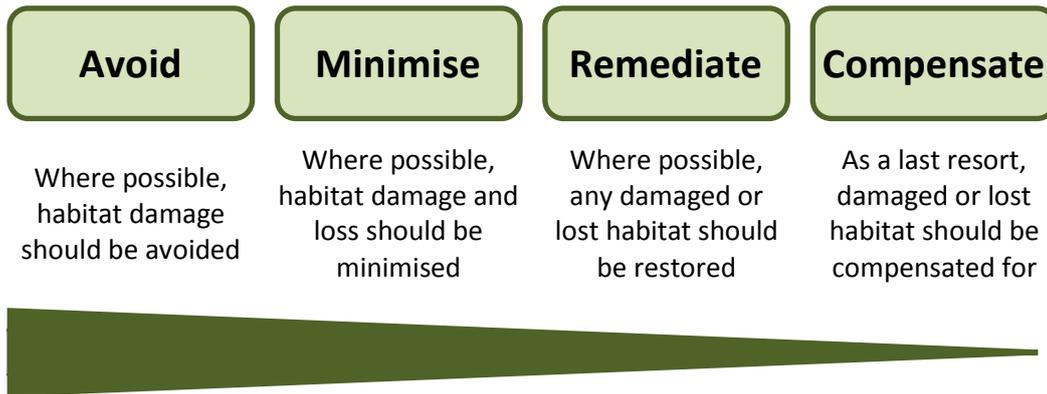
local to the development site, preferably in the same ward or within Harlow or wider HGGT. It should as a minimum be comparable to the habitat that has been lost. The Council will be looking to prepare a biodiversity gain register with HGGT partners to set out which sites or spaces may be suitable for net gain improvements. This will not however preclude other sites coming forward or being considered. All enhanced and new habitats will need to be maintained for a minimum of 30 years secured by a S106 Agreement or Conservation Covenant.

- 5.29. In the absence of any suitable local sites there will also be the opportunity for developers to purchase biodiversity credits from the Secretary of State from an offsite habitat market to help them meet their biodiversity gain requirements. Operated through Natural England, funds from the purchase of biodiversity credits would be used to fund off-site habitat enhancements, purchase interests in land with a view to carry out enhancement works, or undertake the operation and administration of enhancement works. If biodiversity net gain credits is the only solution to enabling BNG for a site then applicants should discuss this with Natural England and the Council prior to the submission of a planning application.

The Mitigation Hierarchy

- 5.30. The effective operation of the BNG regime relies on the principles of and adherence to the biodiversity mitigation hierarchy established in national planning policy, to avoid, minimise, remediate, and compensate for losses of biodiversity. BNG is in addition to the application of the mitigation hierarchy, not instead of.
- 5.31. Application of the hierarchy means retaining habitats on site or avoiding habitat damage in the first instance. BNG is easier to achieve where habitat impacts are avoided due to the way that risks associated with habitat creation or enhancement are accounted for in the Biodiversity Metric.

Image 2: Biodiversity Mitigation Hierarchy



5.32. BNG is not a justification for on-site biodiversity losses simply compensated for by the payment of a levy for habitat improvement elsewhere. The Mitigation Hierarchy must be applied, and development schemes are still expected to comply with relevant planning policies requiring the protection and enhancement of ecological features such as trees, hedgerows and streams within the application site boundary, and incorporate GI and open space within development design.

Exclusion of Protected Sites and Species

5.33. Internationally and nationally designated sites including irreplaceable habitats are excluded from BNG. The potential impact of new development on a protected site outside the development site boundary has to be considered in the usual way in accordance with statutory obligations. Any compensation or mitigation that may be required in this respect would not count as contributing towards BNG.

5.34. **The Biodiversity Metric quantifies biodiversity outcomes based on habitat alone; it does not account for the presence of specific species on the site. They will need to be assessed and carefully considered separately in any ecological evaluation or impact assessment.** Compensation and mitigation needed to comply with legislation in connection with protected or priority species would not count as contributing towards BNG.

5.35. A thorough understanding of a site's habitat, the presence of protected and priority species, and the potential impacts arising from proposed development including on biodiversity outside the application site is all needed, and for which ecological expertise is required.

The Biodiversity Gain Plan

5.36. To demonstrate how the BNG requirement is to be achieved as part of each development, the Environment Act requires developers to submit a **Biodiversity Gain Plan (BGP)** to the Council for approval as a pre-commencement condition of planning approval. Incorporating information obtained using the biodiversity metric the plan is expected to include the following:

- The steps taken to minimise the adverse effect of the development on the biodiversity of the on-site habitat, demonstrating the application of the mitigation hierarchy;
- The baseline (pre-development) biodiversity value of the site;
- The post-development biodiversity value of the site;
- The biodiversity value of any off-site biodiversity gain allocated to the development;
- Any biodiversity credits purchased for the development;
- A demonstration that the 'post-development' biodiversity value of the development is greater than 'pre-development' biodiversity value by at least 10 per cent.
- Information on how any improvements will be managed and monitored over the 30 year maintenance period.
- Where off-site or biodiversity credits is to be provided as an alternative to on-site, information demonstrating why this is the only option and actions that were taken to attempt to avoid this
- Any more relevant attached documents or tools used in support of biodiversity net gain design.

Principles and Rules in applying the Biodiversity Metric

5.37. Appendix 5 contains two tables which set out a series of principles and rules that applicants should consider when using the Metric, as stipulated by Natural England.

6. Trees, Woodlands and Hedgerows

- 6.1. Trees, woodlands and hedgerows offer many environmental benefits. As well as capturing carbon dioxide and providing oxygen, trees remove pollution from the air and improve the quality of water by absorbing pollutants. Trees provide food and shelter for biodiversity and visually they can form significant landscape features. In urban areas such as Harlow they can help to soften the built form and provide more desirable places to live and work. This has a positive impact on our health and wellbeing and can add value to an area by creating more positive perceptions.
- 6.2. Policy PL7 of the HLDP aims to protect trees and hedgerows in Harlow and sets the criteria for assessing tree applications and developments which affect or include trees. This chapter provides further guidance in relation to this. Both Policy PL7 and the Council's Validation Checklist set out what surveys and assessments must be undertaken and submitted as part of a planning application. These documents must be completed by and will be assessed by suitably qualified arboriculturists.
- 6.3. Trees and other woodlands and hedgerows should be considered from the very outset of the development plan process as part of the GI and landscaping strategy for a scheme and be integrated within a proposal. They should also be protected during construction and their long-term maintenance considered.

Tree Surveys

- 6.4. To ensure that development proposals take full account of trees, hedgerows and woodlands, a tree survey will need to be undertaken in accordance with the current British Standard 5837 as a part of the initial site investigations. The survey must include all trees within the site, as well as trees within falling distance of the site. Where trees are growing in groups or woodlands, it may be more appropriate to record these as

single entities or groups of similar species/ age class and any individual trees of notable value. Trees protected by a tree preservation order and trees within a Conservation Area should also be noted.

- 6.5. Hedgerow surveys should include those within and around the site. Their position should be recorded, along with details of species composition, condition, height, width and approximate age. It may also be necessary to survey trees or hedgerows on adjacent land and estimates made where applicable.

Information Box 7: What must a tree survey include?

- **details of the existing species, spread, roots and position of trees**
- **details of any trees that will be felled as part of the proposed development**
- **details of trees that will be affected by the proposed development (including those located on adjacent sites)**
- **what measures will be taken to protect them during construction and**
- **a tree constraints plan**

- 6.6. The tree survey will form the basis of a tree constraints plan clearly demonstrating the crown and root constraints (Root Protection Area, RPA) associated with each tree, group, woodland or hedgerow. A tree's RPA may need to be adjusted where existing infrastructure has influenced its root distribution. The tree constraints plan is a design tool to help inform the proposed site layout as the design evolves.

- 6.7. Those trees assessed as category A or B (in accordance with the British Standard 5837), priority habitats such as species-rich hedgerows and trees which preserve the setting of listed buildings or Conservation Areas shall be retained, unless the need for development in that location clearly outweighs their loss and adequate mitigation can be provided. Those assessed as category C trees should be retained wherever appropriate. Where there are only category C trees on the site, it may be appropriate to retain them until new tree planting can be established.

- 6.8. Applicants should also consider in their tree surveys and overall masterplanning the potential gain or loss of tree canopy across a site. Tree canopy cover can help by locking carbon, filtering pollutants and reducing surface water flooding.

Incorporating trees into development

- 6.9. All trees, whether they are retained existing trees or proposed new trees, must be sustainably integrated into the



proposed development. They must be given sufficient space to develop, both above the ground without the need for overly burdensome pruning work, and below the ground for root development.

- 6.10. Adequate separation will need to be provided from windows to allow natural daylight into buildings and this will depend on the species of the tree and its RPA. Trees should not unduly overhang gardens to allow some natural light into private amenity areas.

National Model Design Code (Street Tree Design Principles)

- 6.11. For larger developments, the layout should be designed in such a way that large growing trees and woodland are located and integrated into areas of publicly accessible open space, rather than being incorporated into private gardens. To safeguard woodlands and tree belts, adequate buffers must be provided to separate them from nearby development.

- 6.12. Development should be planned to avoid any encroachment into a tree's RPA. Only where there is unavoidable conflict and the developer has demonstrated that all other options have been exhausted, will the council consider the use of engineered design solutions and tree-tolerant methods of working to allow low impact uses within the RPA.

Arboricultural Impact Assessment

- 6.13. Once the development has evolved into a proposal that is ready for submission to the local planning authority, it will be necessary to produce an Arboricultural Impact Assessment (AIA). In addition to the identification of trees to be removed, the AIA will need to consider any post development impact that the development will have on retained trees.

Information Box 8: What information must an Arboricultural Impact Assessment include?

- **consider the tree/building relationships that will be produced at the end of the project.**
- **identify issues that will be faced during demolition of the existing buildings and construction of the new ones.**
- **identify where tree protection measures are needed and what operations are likely to pose threats to retained trees, including any special foundations or methods of work that may be needed if structures are proposed within tree root protection areas, where materials will be stored and where worker facilities will be located.**

- **show clearly all the trees to be retained and those to be felled.**
- **show where all tree protective fencing is to be erected and all ground protection where important tree roots are at risk of damage.**
- **show any areas of landscaping that can be identified, where practicable, be protected by fencing to avoid soil compaction.**

New tree planting

- 6.14. New development provides an opportunity for trees to be planted in the right place, increasing the sustainability of the scheme. Adequate provision must therefore be made for new trees to be planted with all the necessary aftercare to ensure they successfully establish.
- 6.15. Tree selection and planting techniques will need careful consideration to ensure that the trees are able to successfully establish and tolerate the surrounding environment. Species will need to be chosen to ensure adequate diversity both within the development site and across the wider landscape. Tree species should be compatible with access and movement arrangements, with sufficient space provided around them to ensure that they will not conflict with buildings and utilities.
- 6.16. Local soils, surrounding land use and the required function of the tree will help to inform the types of tree planted on each site. However, it is important to ensure that there is a diverse range of species across the landscape to ensure long term resilience.
- 6.17. Where space permits, larger growing trees should be used to create landmark and skyline features. This is important for both residential and non-residential schemes. Non-residential development provides unique opportunities to plant large growing trees that can grow to maturity without causing the associated disbenefits often seen when planting trees too close to homes. A good example is areas of hard standing, such as car parks, where trees can significantly reduce the urban heat island effect. For larger developments, consideration should be given to planting community orchards.



- 6.18. Where the trees are to be planted on land that will ultimately be adopted by the local highway authority (Essex County Council), there should be prior discussion with them at the early stages of the design process in order to establish if trees can be located and preserved within land to be maintained by them.

7. Public Open Space Standards

- 7.1. This chapter of the SPD sets out the mechanisms that the Council will use to ensure appropriate delivery of public open space, play space and, allotment provision in new developments including through the use of on-site facilities and, where appropriate,

through off-site upgrades or financial contributions. It also provides detail in respect of the future maintenance of public open space, sport and recreation facilities.

Information Box 9: What is public open space?

The National Planning Practice Guidance states that: ‘Open Space, which includes all open space of public value, can take many forms, from formal sports pitches to open areas within a development, linear corridors and country parks. It can provide health and recreation benefits to people living and working nearby; have an ecological value and contribute to green infrastructure, as well as being an important part of the landscape and setting of built environment, and an important component in the achievement of sustainable development’. It does not include private garden space such as private gardens, communal areas for flats and balconies. These will be considered in addition to the public open space provision required by a development.

Applications the standards apply to

7.2. As per Policy L1 of the Harlow Local Development Plan (HLDP), **public open space, play space, allotments and sports facilities are expected to be provided either on-site or through off-site upgrades on major developments only** (see definition ² below). This should be on-site unless it has been demonstrated that off-site provision or contribution is more appropriate.

Information Box 10: Definition of major development

Development involving one or more of the following:

- (a) The winning and working of minerals or the use of land for mineral-working deposits;
- (b) Waste development;
- (c) The provision of ten or more dwellinghouses, or where the number of dwellinghouses is unknown, the site area is 0.5 hectares or more;
- (d) The provision of a building(s) – floorspace to be built is 1,000 sqm or more;
- (e) Development carried out on a site with an area of 1 hectare or more.

² As detailed in the HLDP and The Town and Country Planning (Development Management Procedure) (England) Order 2010

- 7.3. The specific standards set out in this SPD will apply to the whole of Harlow District and **only applications involving residential development or part (c) in the above information box**. Public open space may be required in association with other types of development but the type and amount will be guided by site specific circumstances.
- 7.4. **Applicants should also consider the requirements set out within the [Council's Design Guide Addendum for private amenity space standards](#)** such as garden space standards and private communal areas within developments.

What residential development will need to provide open space?

- 7.5. It is considered that residents of all types of new housing, whether market or affordable, will make use of open space in Harlow. Most types of open space will be used by most households, although there will be some exceptions, for example children's play space.
- 7.6. It would need to be demonstrated by applicants that the level of open space contributions, or requirement proposed, in conjunction with affordable housing and any other planning obligations would make their scheme uneconomic, for this provision to be waived.
- 7.7. As a guide, table 3 below provides examples of the types of residential development and associated open spaces the Council would expect to be provided, linked to or contributed towards. Open space requirements including off-site contributions will not be expected from residential extensions.
- 7.8. The same level of open space provision will be required for applications for change of use from a non-residential use to a residential use unless planning permission is not required.

Table 3: Residential development typologies and Public Open Space provision

Category	Open market and affordable housing	Flats, apartments and maisonettes	Sheltered accommodation and rest homes	Nursing homes
Playing fields (e.g football and cricket, and lawn sports etc)	√	√	√	x
LEAPs	√	√	x	x

NEAPs	√	√	x	x
Allotments	√	√	√	√
Public Amenity Space/Local Parks	√	√	√	√
Local Natural/semi-natural green spaces such as Green Wedges	√	√	√	√
District wide Natural/Semi-natural green spaces such as Parndon Wood	√	√	√	√
District wide Parks such as the Town Park	√	√	√	√

Public Open Space Typologies

7.9. Table 4 sets out the public open space typologies which the public open space standards relate to. The table provides a description of what each public open space means and examples in Harlow where appropriate.

Table 4: Public Open Space Typologies

Parks and Gardens

This includes the provision of both large scale district size parks and gardens and more locally sized provision. Parks and gardens provide informal recreation and community events for residents. They could include formal garden areas that comprise a range of play areas and water features such as Harlow Town Park.

Harlow Town Park is an important open space which serves many residents in both the district and the surrounding area.

Natural and semi-natural green space

The purpose of these areas is to provide spaces for wildlife conservation, biodiversity and educational awareness by maintaining or improving the natural landscapes. They can be small scale in size between housing developments or on a larger scale serving the entire district such as Parndon Wood Site of Special Scientific Interest.

Green Corridor

These provide access for walkers, cyclists and horse riders whether for leisure purposes or travel. They also provide safe corridors for wildlife migration. They can also include Public Rights of Ways and Bridleways which provide important connections to and through the countryside and wooded areas around Harlow.

They also include Green Wedges and Green Fingers which are unique to Harlow and should look to be connected and woven into new developments as part of GI provision.

Amenity Green Space/Other Open Spaces

Amenity green spaces provide opportunities for more informal activities to take place either close to home or work.

As 'doorstep' green areas, amenity green spaces can provide for casual play by young children close to housing and supervised by adults, and can provide sitting out areas for older persons.

These spaces are different to private amenity spaces e.g. residential gardens, shared gardens or balconies.

Allotments

Allotments provide opportunities for those wishing to do so to grow their own produce as part of the long term promotion of sustainability, health and inclusion.

Cemeteries and Churchyards

These resting places for the deceased provide places for quiet contemplation and can often be linked to the promotion of wildlife conservation and biodiversity.

Civic Space

These spaces provide a setting for civic buildings and community events. For example the Water Gardens area in the Town Centre provides formal seating areas but also space for Council and other events.

Provision for children/young people

These are areas designed primarily for play and social interaction involving children and young people, such as equipped areas of play, children's play areas, ball courts such as basketball and tennis, skateboard areas and teenage shelters.

Equipped areas of play include local facilities for young children referred to as Local Equipped Areas of Play (LEAPs) and neighbourhood facilities for older children referred to as Neighbourhood Equipped Areas of Play (NEAPs).

Outdoor Sports Provision

These spaces and facilities support a range of outdoor sports provision including pitch sports (football/rugby/cricket), tennis, bowls, athletics or countryside and water sports.

7.10. Where referred to in the table, local sites are generally smaller than 15ha which, according to evidence prepared for the HLDP, are primarily used by people in the local vicinity of the space, whilst District sites are generally greater than 15ha, to which people are prepared to travel further.

7.11. The map in Appendix 1 shows the types of open space typologies within Harlow as set out in table 4. It has been taken from [the Open Space and Green Infrastructure Study and updated to reflect changes in open space provision in Harlow since 2013](#). The map does not show all playing fields in the district. **Applicants should use this map as a guide only and undertake their own mapping and assessment to ensure that these spaces still remain the same typology. Applicants should also make reference to the latest Sports Facilities and Playing Pitches Study which maps the sports facilities in the district.**

Public Open Space, play space, allotment and play pitch standards

7.12. The tables set out in Appendix 2 specify the expected space standards for public open spaces, equipped areas of play and allotments in Harlow. They have been informed by the [2013 Open Space and Green Infrastructure Study](#) produced to support the HLDP. The study took national standards and compared them with the existing levels of provision, consultation findings undertaken as part of the study and benchmarking against other local authority standards. In some cases the standards have been updated to reflect more recent standards set out nationally.

7.13. Accessibility, in respect of the standards, is defined as the maximum distance (in kilometres) residents should be required to travel to use public open space of a specific

type. Quantity is defined as the minimum provision of each public open space type (in hectares) which should be provided per 1,000 population. The tables also include an explanation of the individual standards. They are considered broadly consistent with the main national standards whilst also reflecting the nature of the GI found in Harlow.

Playing pitch requirements

- 7.14. For playing pitch requirements, applicants should consider the findings of the Council's Sports Facilities and Playing Pitches Study or any subsequent updated evidence to determine whether there is a surplus or deficit in the particular area and what type of playing pitch may be required, e.g. football pitches, cricket pitches.
- 7.15. If new pitches are required to be provided it will be based on a tailored approach to each development, using the Sports Facilities and Playing Pitches Study (and/or other robust up-to-date planning policy) to justify the needs arising from the development and how these are to be met. The Team Generation Rates identified in the individual sports sections in the Sports Facilities and Playing Pitches Study should be used as the basis for calculating the additional pitch needs arising from individual developments and these should be used in conjunction with [Sport England's Playing Pitch Calculator](#), or other robust methods which help identify costs. A worked example of the Playing Pitch Calculator in relation to Harlow's needs is contained in Appendix 1 of the Study. Changing and parking facilities will also need to be provided.

How to apply the standards

- 7.16. The standards set out in Appendix 2 indicate that approximately 0.5ha of space is required for play areas and allotments per 1000 population. A further 5ha is required for local natural/semi-natural green space, local park provision and amenity space per 1,000 population and a further 4.5ha of district wide park and natural/semi-natural green space per 1,000 population.
- 7.17. Applicants should use the latest quantitative evidence (2013 Open Space and Green Infrastructure Study and 2017 Sports Facilities and Playing Pitches Study) or their own assessment, if considered appropriate by the Council, to determine the existing level of public open space provision within the area. This will identify whether the existing provision is sufficient to meet the needs of the new residents of the development taking account of the increase in population and subsequent impact this may have on the existing and future level of local provision and facilities.

7.18. The Information Box below provides a summary of how to calculate the impact of a development proposal.

Information Box 11: Calculating the impact of development on public open space provision

- 1) **Estimate the population of the proposed new housing development (using the Harlow average household of 2.44 people if an outline application or the occupancy rates set out in Information Box 12 for Full/Reserved applications – or any other updated figures)**
- 2) **Adding this to the latest ward population figures derived from government statistics (e.g. the Office for National Statistics)**
- 3) **The existing provision for each public open space type is then divided by the new estimated population figure**
- 4) **This is compared against the standards above**
- 5) **The assessment will use this information to determine the effect on the future level of provision and whether the increase in population will result in a new quantity deficiency.**

7.19. New provision will normally be required if the existing amount of public open space, play space or allotments in the area is insufficient, either from a quality perspective or accessibility perspective, to cater for the needs generated by residents of the new housing development.

7.20. In some cases applicants may need to consider the multi-functionality of open spaces both within their site and in the local area when determining their correct level of provision. For example playing pitches and play areas can be provided within local park areas or amenity spaces. This will still need to consider the accessibility requirements set out in the open space standards tables in Appendix 2 and other planning policies and design guidance set out within the HLDP and this SPD.

On-site or off-site provision

7.21. Applicants should use the standards set out in Appendix 2 to determine what is required by the resulting development population and calculate if there is a deficit or

surplus in the area. Where there is a surplus then neither on-site or off-site contributions are required although it is expected that, in accordance with the HLDP, all developments should provide amenity green space on-site either through for example some form of landscaping or green buffers/strips. If this is not viable then only in exceptional circumstances will an off-site contribution for amenity space be considered in accordance with table 6.

7.22. This is in addition to private amenity space standards set out in the Design Guide Addendum, e.g. private gardens or shared private gardens/balconies and in addition to ensuring that the site fulfils the Biodiversity Net Gain requirements of this SPD.

7.23. When considering whether or not public open space is to be provided on-site the Council will initially consider the following circumstances:

- The level of deficit in the area and therefore the level of provision needed for public open space, play space, allotments or sports provision
- The viability of the site to accommodate provision
- The suitability of the site in terms of size, location etc. and whether this can accommodate on-site public open space or facilities
- What public open space may already be available on the site and whether this could be improved/enhanced/made public and therefore used as additional provision
- Whether public open space can be provided in a form that is responsive to community needs and sustainable to manage.

7.24. When considering whether on-site provision or off-site contributions are required, applicants should use the dwelling thresholds set out in table 5. The thresholds will apply to a new housing site and conversion of existing buildings/sites to residential use. The table is based on the standards set out in Appendix 2, the likely number of residents a site would need to generate to deliver the requirement as well as local and national benchmarking. Contributions will only be sought for developments of 10 or more dwellings or 50 in respect of allotments which is the number required to generate one plot.

Table 5: Dwelling thresholds for on-site and off-site provision/contributions

Category	Minimum number of dwellings required to provide on-site open space	Minimum number of dwellings required to provide off-site financial contributions
Playing fields	To be required on the Strategic Housing Site East of Harlow or any sites over 600	10 +
LEAPS	50 +	10+
NEAPS	500 +	10+
Allotments	500 +	50+
Amenity Green Space (can include a LAP)	Must be provided on-site in all developments	Must be provided on-site
Local Parks and Gardens and Local Natural/Semi-Natural Green Space	100 +	10+
District Parks and Gardens and District Natural/Semi-Natural Green Space e.g. Town Park/ Parndon Wood	N/A	10+

7.25. There may be exceptional cases where it would be preferable to focus on the enhancement of an existing area instead of providing new open space on-site even when the proposed development is for more than the threshold. This would be discussed during pre-application discussions on a case by case basis, based on the particular circumstances of the site and character of the development proposal. It might also be the case that due to the size of development, both an off-site contribution and on-site provision is required.

7.26. If the provision of open space, play area or allotment site, cannot be provided in part or full on a development site due to site constraints and/or site location, then provision may exceptionally be provided off-site where it is located within the accessibility distance from the development site or relevant part of it to the open space. Off-site

provision means land not included within the planning application red line boundary.

7.27. Where the open space is to be provided by the developer, the Council will expect the developer to provide the site for the open space and either; 1) design and build the facility to the quality standards defined by the Council; or 2) make a payment using a planning obligation so that the Council can make arrangements to design and construct the facility.

Off-site financial contributions

7.28. Financial contributions towards off-site provision are based on providing new facilities, or upgrading existing facilities within the local catchment. For locally equipped play areas (LEAPs), neighbourhood equipped play areas (NEAPs), and allotments this is the relevant ward area. For playing pitches, a district-wide catchment may be appropriate given existing patterns of travel to use such facilities (see further details on playing pitch contributions below).

7.29. As stated above all developments should provide some form of on-site amenity green space and only if this is not viable will an off-site contribution be considered in accordance with table 6.

7.30. The costs given in table 6 are based on the average costs of new or upgraded provision using resources such as Fields In trust, the National Allotment Society and costs taken from building similar facilities in Harlow. They do not include maintenance but have considered site preparation, external works and fees where known.

7.31. The off-site contribution may be less than what is stipulated in the table if some provision already exists to serve the development or if some on-site provision is being made. As smaller dwellings are less likely to be occupied by families, the occupancy levels of the proposed dwellings will also be taken into account by the Council in calculating the off-site financial contribution for provision for children and young people, e.g. 1 bed dwellings are less likely to generate a lot of children. As a guide the occupancy rates in the Information Box below should be used.

Information Box 12: Occupancy rates for calculating off-site contributions

- **1 bedroom – 1.5 persons per dwelling**
- **2 bedroom – 2.4 persons per dwelling**
- **3 bedroom – 3.5 persons per dwelling**
- **4 or more bedrooms – 4.5 persons per dwelling**

- **Average persons per dwelling in Harlow (2011 census) – 2.4 persons per dwelling**

Table 6: Off-site financial contributions

Type of public open space	Sq m per person	Provision cost per square metre £	Contribution per person
LEAPs	1.75	£150	£262.50
NEAPs	1.75	£100	£175
Allotments	2.5	£20	£50
Amenity Space/Other Open Spaces	4	£10	£40
Total			£527.50 per person
Town Park (District Wide Park)	Subject to the latest costs from Town Park Management Plan. Reference should also be made to the HGGT IDP for schemes.		
Local natural/semi-natural green spaces and Local Parks and Gardens	Please contact the Council in regards to the latest information in respect of GI projects across Harlow including any improvements to the Green Wedge/Finger network, the River Stort or other green spaces. Reference should also be made to the HGGT IDP for schemes.		

7.32. District wide provision of natural/semi natural green spaces and district wide parks/gardens (tables 1 and 3 in Appendix 2) will be provided by means of off-site financial contribution only. This cost will be determined on a case by case basis in accordance with the relevant management plan or GI strategy in the area or relevant open space. For example contributions may be sought towards the most up to date Town Park management plan or towards projects which manage and enhance Parndon Wood.

7.33. If the Council were to introduce a Community Infrastructure Levy (CIL), this will replace the costs set out in table 6. Costs will be reviewed frequently and where appropriate increased to reflect inflation in accordance with the Retail Price Index (RPI).

Maintenance and commuted sums

- 7.34. The developer is responsible for securing acceptable means for the future management and maintenance of open space on-site and needs to provide the Council with full details of these arrangements before a planning application is determined for the lifetime of the development.
- 7.35. It is anticipated that on-site open space will be transferred to a management company for maintenance, future management and inspections as covered in a planning obligation Section 106 Agreement. Responsibility must also be shared between residents. The developer needs to ensure the costs imposed on residents are reasonable and remain so for the lifetime of the development.
- 7.36. The council expects the on-going management and maintenance arrangements to be sufficient to ensure that areas of open space remain in a high-quality condition. This is intended to avoid open spaces becoming neglected and deteriorating to an extent that their appearance, public enjoyment and functionality are affected.
- 7.37. In exceptional circumstances the Council may adopt and maintain open space within new housing developments subject to the provision of a commuted sum to cover maintenance costs. Likewise if open space is to be provided off-site through existing provision then a commuted sum for its maintenance may be required. Table 7 provides a current estimation of the likely maintenance costs but the Council may consider a different cost if site circumstances dictate.
- 7.38. Financial contributions towards off-site provision or enhancement to existing facilities will include a 20-year maintenance period to ensure that the costs will not lead to an increasing maintenance burden for the council in the short to medium term. These costs will be reviewed frequently to take inflation into account.

Table 7: Maintenance costs (as of 2021 – does not include annual inflation over the 20 years)

Type of public open space	Cost per sq m /£	Commuted payment for 20 year period (exc inflation)
LEAPs	£5.00 sq m	£114 sq m
NEAPs	£3.80 sq m	£76 sq m
Allotments	£1.20 sq m	£24 sq m
Amenity Open Space	£1.20 sq m	£24 sq m
District and Local Parks/Gardens, Natural/Semi-Natural Green Space Spaces (e.g. Town Park/ Parndon Wood)	To be negotiated on a one off basis in relation to large sites.	

Calculating costs for playing pitches

7.39. To calculate the scale of a developer's financial contribution for the provision of pitches and related facilities the following should be used:

- [Sport England's Playing Pitch Calculator](#), where available, is one means to assess pitch and related facilities needs arising from specific developments.
- If the Calculator is not available, then Sport England's latest facility costs for pitches and related facilities should be used, in conjunction with the Team Generation Rates arising from specific developments.
- Where there are robust and up-to-date local pitch and related facility costs, then these may be used instead, particularly where the project is to enhance the existing facility provision.
- The cost of maintenance and sinking funds, where justified, should be calculated using Sport England or National Governing Body (NGB) costs advice notes, or where there is known robust local cost, this may be used in preference.
- When a land cost is justified, this cost will be based on the local market cost for the relevant sport/leisure land use.
- In addition to the costs identified above there may be a need to add the cost of other local and site-specific costs (e.g. abnormal ground conditions, site access needs, landscaping, acoustic fencing etc).
- Maintenance and sinking costs can be sought and [Sport England's 'Lifecycle Costs'](#) information provide what percentage of the capital value should be used as a guide.
- If the application is based on the maintenance (and any replacement) that is to be funded by a development's site management company or similar, this should be in perpetuity.
- Where known, if the NGB given costs or known local maintenance costs are lower than Sport England's costs, then these figures will normally be used as an alternative.

How will contributions be spent?

7.40. Planning Obligations in the form of Section 106 Agreements will be used to secure the types of open space necessary to make the development acceptable in planning terms. The terms of a planning obligation will depend on the development proposal but may include financial contributions, requirements, development, management and

maintenance. Existing studies and strategies will help inform the spending of financial contributions, including the 2013 Open Space and Green Infrastructure Study and the 2017 Sports Facilities and Playing Pitches Study which identify deficiencies in existing and future provision. The Council will also consider the latest HGGT Infrastructure Delivery Plan (IDP) and any other strategies or projects identified for Harlow's GI/sports facilities.

7.41. Since some off-site projects, funded through financial contributions, are not always ready to commence at the time the relevant contribution is received, the Council would expect to retain contributions for a period of 5 years from the date of payment. If the Council introduces a CIL then contributions will be collected in accordance with the latest CIL regulations.

7.42. The Council will ensure that:

- financial contributions in lieu of on-site provision will be spent within the vicinity of the development, usually within the accessibility distance standards set out in in this SPD, or if this is not practical then primarily within the ward boundary based on the facilities mostly likely to meet the needs of the development or wider if appropriate, e.g. improvements to the wider Green Wedge network or district wide playing pitch provision.
- financial contributions to improve the quality of existing provision will normally be used to enhance the nearest open space, usually within the accessibility walking time/distance standards set out in this SPD, which is identified through the council's existing studies or strategies as requiring or having opportunities for improvement. If this is not practical, consideration will be given to existing facilities within the ward boundary which are mostly likely to meet the needs of the development or wider if appropriate,
- financial contributions towards new or enhanced playing pitch provision will be considered in relation to existing needs and future demand identified in the council's Sports Facilities and Playing Pitches Study or its successor, or the HGGT IDP.
- appropriate community consultation is undertaken as part of the planning application process.

8. Sporting Facilities

- 8.1. Sporting facilities include built facilities which are used by the community for sport and physical activity such as gyms, studio space, sports halls and swimming pools. Although they are not considered open space they are important in contributing towards active and healthy lifestyles and often are associated with supporting open spaces such as playing pitches, parks and outdoor sporting activities.

- 8.2. This chapter provides information on how the Council will look to deliver sporting facilities in the district. It is based predominantly on the information contained within the 2017 Sports Facilities and Playing Pitches Study and applicants will need to be aware of any updates, increases in inflation and costs since the study was undertaken or changes in supporting documentation such as that developed by Sport England.

Assessing demand for new developments

- 8.3. The table below should be used to calculate the amount of expected demand being generated by a development for sports halls, swimming pools and fitness facilities. It provides a quantity of facility per 1,000 population, accessibility and quality standards, and has been directly derived from the 2017 Sports Facilities and Playing Pitches Study assessment process.
- 8.4. The quantity requirements are based on the demand generated by the development. The accessibility requirement determines the acceptable travel distance to a facility based on known travel patterns for different sports. This information can be used to guide whether provision should be on-site or off-site, and the maximum distance to existing facilities which potentially have capacity to meet the new demand generated from the development. The accessibility requirement also needs to consider the facility ownership, management and availability for community use. The quality requirement relates to the quality and design of facilities, and that they should reflect current best practice, including current design guidance from Sport England and the National Governing Body (NGB). This should apply to refurbishment as well as to new build proposals, as the age and condition of a facility will impact upon its attractiveness and ability to meet the demand generated from a development.

Table 8: Demand for new built facilities in development

Assessment of demand for new developments			
Facility type	Quantity per 1,000 population	Accessibility	Quality
Sports Halls	0.29 badminton courts fully available at peak time	20 minutes by car	Design and quality standard to meet Sport England or the relevant national governing body standards
Swimming pools	11.13 sq m water space fully available at peak time	20 minutes by car	Design and quality standard to meet Sport England or the relevant national governing body standards
Fitness facilities (stations)	10.05 stations fully available at peak time	15 minutes by car	Design and quality standard to meet Sport England standards
Fitness facilities (studios)	0.12 studios fully available at peak time	15 minutes by car	Design and quality standard to meet Sport England standards

- 8.5. The assessment steps to determine if a contribution (either on-site or off-site) is justified includes:
- identifying the development's expected future population;
 - assessing the demand and cost of meeting this demand from the development for different facility types, based on the additional population;
 - identifying if the demand can be met by existing facilities (where these have a sufficient capacity, are accessible, and acceptable quality);
 - if the demand cannot be met by existing facilities, then use the local evidence base and/or consult with relevant stakeholders to find the best approach to meeting these needs;
 - identifying the costs of the new or extended facility, or other quality improvements to increase an existing facility's capacity; and
 - then applying the costs proportionate to the development's future population.
- 8.6. Although the population of a single development (e.g. on a small site or an individual stage of a larger site) may not in itself generate the needs for a full facility, it will still generate additional demand, which should be quantified and be met. Other contributions could then be sought from other applications to enable the delivery of the facility. There may also be specific facility needs identified in the strategy which are required to be provided on a development site, as this is the most deliverable opportunity. This may include leisure centres or other facilities which potentially have a wider catchment than the development site itself or where the development itself generates the whole or a large proportion of the facility need.

Off-site contributions and maintenance

- 8.7. To calculate the scale of a developer's financial contribution for the provision of a facility which has been identified as being justified and appears in the strategy project list, the Contributions Assessment Calculator can be used. An example of how to use this can be found in [Appendix 3 of the 2017 Harlow Sports Facilities and Playing Pitches Study](#). This calculator uses current national costs, but if there are robust and up-to-date local facility or project costs, then these may be used instead, particularly where the project is to enhance the existing facility provision. The cost of maintenance and sinking funds, where justified, should be calculated and included in the contributions expected from the developer. These may be based either on the Sport England or National Governing Body costs advice incorporated in the calculator, or where there are known robust local costs, these should be used in preference.
- 8.8. When a land cost is justified, this will also need to be included in the developers' contributions, based on the local market cost for the relevant sport/leisure land use.

There may be a need to add the cost of other local and site-specific costs (e.g. abnormal ground conditions, site access needs, landscaping, acoustic fencing etc).

- 8.9. The cost for maintenance should be sought for both on-site and off-site provision, unless it can reasonably be argued that normal operational income should cover this. Where appropriate, costs towards a sinking fund and for land purchase should also be sought, depending on the facility type and how it is to be used.
- 8.10. It should be noted that all costs should be date related, and inflation should be taken into account. For example, if a facility is to be delivered in 3 years' time, an appropriate inflation index, such as Spons Building Costs Indices, should be applied.

Phasing

- 8.11. The timing and delivery of the sports facility should be considered in relation to development phasing to achieve a balance between ensuring the facility is in place in time to meet the needs of the residents, avoiding pressure being placed on existing facilities, and the financial viability of the development. Where there are separate developments in the close geographical area, e.g. around a town, that taken together generate a need for a whole facility, contributions need to be made towards new facility provision or improving an existing facility provision.

9. Design Standards

- 9.1. The Council will expect that the design of public open spaces and sports facilities will be of high quality, durable and appropriate for the typology being provided. That includes the size and provision of play equipment, ancillary facilities for sports uses and the parking provision, accessibility and overall layout of the space. This chapter provides some overarching design principles for open spaces, play facilities, sporting uses and allotments.
- 9.2. Where new public open spaces are to be provided or existing facilities improved, they should be designed to take into account a wide range of disabilities when planning for their design and layout. A Design and Access statement and Health Impact Assessment should support and accompany a planning application detailing how this has been taken into account. It must consider the relevant legislation and Building Regulations and discussions should also be held with the relevant sporting associations, local clubs and other relatable charities/groups to discuss the relevant needs and requirements.
- 9.3. The location and layout of new spaces is particularly important when considering the safety and security of people. Every design and layout of open space, sport and recreation facility must take account of any community safety issues, and avoid creating potential opportunities for crime and vandalism such as areas that are unobserved, poorly lit or underutilised, which can feel threatening to users, create a perception of crime and attract anti-social behaviour. All design submissions should demonstrate how community safety and crime prevention measures have been considered in line with [‘Secure by Design’ standards](#).
- 9.4. The specific design standards expected for open spaces and sports facilities are set out in more detail below. In some cases they will refer to standards and design guidance set out by a body or organisation such as Fields In Trust, Sport England or the National Allotment Society. In particular applicants should consider [Sport England’s Active Design Guide](#) which was produced in conjunction with Public Health England to help new developments create the right environment to help people get more active.

Parks, natural/semi-natural space and amenity spaces

- 9.5. New parks in Harlow should take cues from existing parks, whether that is the Town Park or more local neighbourhood parks. They should provide a welcoming accessible place that all park users can enjoy with entrances and boundaries which are well defined and in good condition.
- 9.6. Parks should provide a range of active and passive recreation with play equipment for a range of ages and sporting provision. However they should also consider the

provision of habitats which support local biodiversity. They must be readily accessible by public transport and should be designed to be integral to existing and proposed active travel networks to help ensure that they can be easily accessed by walkers and cyclists. They must also include cycle storage facilities as well as other supporting amenities such as litter bins, signage, seating and, if large enough, toilet facilities and a café, drinking fountains and storage areas for pushchairs and mobility scooters.

- 9.7. Natural and semi-natural green spaces provide a more informal recreational space and should be designed to connect people with wildlife whilst also seeking to improve local biodiversity. They can also act as sustainable drainage systems (SuDS). The layout of semi-natural spaces should be planned in a way that guides the community around the space through the use of footpaths and cycle paths, planned grass cut areas, woodland walks and maintained trails with appropriate signage. The landscaping should be managed to allow this movement to happen but to also enable local biodiversity to flourish through, for example, un-managed wild flower meadows, grasslands, hedgerows and streams/water features. Where appropriate these green spaces should still have areas for seating, litter/dog bins and signage as well as more formal cycle paths, and well-lit footpaths/bridleways.
- 9.8. Natural green spaces however should develop more naturally from existing landscape features where there is an already important biodiverse space. They should be retained and woven into new developments and as much as possible be untouched and unmanaged. Some of the district's Green Wedges and Fingers already provide a natural or semi-natural open space and applicants should consider these spaces as part of their landscaping and GI strategy.
- 9.9. Amenity spaces should be planned into new developments in order to create 'door step' green spaces. These not only provide informal seating areas and play space but also provide some natural landscaping and green buffers. There is no formal design guidance for the provision of amenity spaces in new development but applicants should consider the size, location and provision of green spaces in the context of the whole application site, the individual residential areas and streets and adjoining green spaces. Landscaping, including the use of paths, grass, trees, hedgerows and other planting should also be considered for each amenity space.



- 9.10. The size and layout of amenity space should also be multi-functional in order to encourage physical activity by all groups within the community. For example space should be suitable for informal sport to encourage use by children and young people with circular walking, running and cycling routes around the open space to encourage activity.
- 9.11. Further guidance is included in [Sport England's Active Design guidance](#) (especially under Active Design Principle 1 – Activity for All and Principle 5: Network of Multi-Functional Open Space).

Allotments

- 9.12. When choosing the location and site for an allotment it is important that the land has soil that can be cultivated and isn't hindered by rubble or contaminated by chemicals. It must not be prone to flooding or some other form of nuisance. Sites which are level and able to receive sufficient sunlight, in particular south-facing sites, are preferable. The provision of ancillary facilities for an allotment may be dependent on the size and location of the site but in general it should include:
- Concrete/hard-surfaced or flat main pathway with individual pathways to the allotment plots
 - Surrounding hedges or fences to provide safety and protection
 - Reliable water source
 - Secure cycle parking and, if appropriate, a small parking area although every effort should be made to promote walking and cycling to the site
 - Storage facility for each allotment plot, large enough to store tools such as spades
 - Possible provision of toilet facilities and clubhouse, community shed and community meeting areas.
- 9.13. Allotment layout and design should also consider a variety of potential users including those with physical or mental disabilities. Allotment plots should therefore have a

flexible layout that provides a variety of bed heights, accessible layouts and paths/tracks, and the provision of shelters.

Playing Pitches and other sporting facilities

- 9.14. Sport England maintains and updates [guidance on design and dimensions](#) for the sports sector. This includes requirements and practical advice on building and maintaining playing fields and sports pitches as well as the design selection process of material for a range of outdoor sports surfaces. They also provide useful information on costs, comparator studies and advice on construction specifications.
- 9.15. Applicants should refer to the most up to date standards produced by Sport England when designing playing pitches and other indoor and outdoor sports facilities including ancillary buildings such as changing facilities, toilets, clubhouses and pavilions.

Equipped Areas of Play, Local Play Areas and Multiuse Games Areas

- 9.16. Fields In Trust have developed size standards for play areas including dimensions of the play space and the actual activity zone within them. These are set out in table 9 below and should be used as a guide to help develop Local Areas of Play (LAP), Local Equipped Areas for Play (LEAPs) and Neighbourhood Equipped Areas for Play (NEAPs). It also includes indicative buffer zones between the play area and nearby dwellings which ensure that facilities do not enable users to overlook neighbouring properties, reducing the possibility of conflict between local residents and those at play.
- 9.17. For NEAPs, the minimum activity zone of 1,000 sqm should comprise an area for play equipment and structures and a hard surfaced area of at least 465sqm which is the minimum needed to play five-a-side football. Buffer zones for Multiuse Games Areas (MUGAs) may need to be increased for activities such as skateboarding.

Table 9: LAP, LEAP and NEAP size/dimensions

Typology	Minimum Sizes	Minimum dimensions	Buffer Zones
LAP	0.01ha	10x10 metres (minimum activity Zone of 100 sqm)	5 metre minimum separation between activity zone and nearest property containing a dwelling
LEAP	0.04ha	20x20 metres (minimum activity	20 metre minimum separation distance between activity zone

		zone of 400 sqm)	and the habitable room façade of dwellings
NEAP	0.1ha	31.6x31.6 metres (minimum activity zone of 1,000 sqm)	30 metre minimum separation distance between activity zone and the boundary of the nearest property containing a dwelling
MUGA	0.1ha		30 metre minimum separation distance between activity zone and the boundary of the nearest property containing a dwelling

9.18. LAPs are primarily for children up to the age of six and should be designed to allow for informal observation and supervision and primarily function to encourage informal play and social interaction. A LAP requires no play equipment as such, relying more on demonstrative features indicating that play is positively encouraged. Like LEAPs and NEAPs set out below they are best positioned beside a pedestrian route and should occupy a well-drained, reasonably flat site surfaced with grass or a hard surface. Depending on location it may have a guard rail, low fence or planting around the perimeter.

9.19. A LEAP is intended primarily for children who are beginning to go out and play independently and should be designed to provide a stimulating and challenging play experience that should include equipment and structures that support a number of movements, play and textures. The number and nature of equipment will be agreed on a site by site basis but as a guide they should contain at least five pieces of play equipment. There should also be adequate space within the area to allow children to be generally active and freely move around. LEAPs may need to contain perimeter fencing, if close by to roads, with self-closing gates. Seating and litter bins should also be provided and ideally there should be areas which are shaded by, for example, large trees or canopies.

9.20. NEAPs are primarily used by older children who normally have the freedom to range further from home. Like LEAPs, these areas should contain equipment and structures that support a range of movement, play, textures and creativity but also areas for ball games and wheeled activities. The number and nature of equipment will be agreed on a site by site basis but as a guide they should contain at least nine pieces of play equipment. There should also be adequate space within the area to allow children to be generally active and freely move around. These larger play areas may require perimeter fencing, self-closing gates or possibly a barrier, seating, litter bins and areas of shade. They may also require a small car parking area or at least cycle storage facilities.



National Model Design Code (Types of Play Space)

9.21. When considering MUGAs or multi-use games areas, the following should be considered: 1) the predominant sporting uses; 2) the degree of intensity of use; 3) the sports performance and playability characteristics; and 4) the intended lifespan.

9.22. MUGAs serve as play facilities for children both formally and informally. They should be marked out for a range of activities, robustly made with ease of maintenance in mind and be free to use. Sites should avoid steep gradients and slopes, unstable ground and very exposed terrain and ideally be located on a flat surface within a sheltered area. A site will need to provide cycle parking provision and if appropriate provide or be situated close to car parking facilities. It is critical that access to emergency vehicles is also provided. MUGAs designed for formal sport and/or are supported by sports lighting should have regard to Sport England's [Artificial Surfaces for Outdoor Sports](#) and [Artificial Sports Lighting design guidance](#).

Inclusive Design

9.23. It is important that play space, open space and amenity spaces provide opportunities for the entire community it serves including for example those with disabilities, elderly people or, those with buggies. Information Box 2 in Chapter 1 sets out CABE's Principles of Inclusive Design and should be considered in the overall design and layout of developments.

9.24. As an example, when designing for play areas applicants will need to consider how the site is accessed ensuring pathways are accessible, wide enough for wheelchairs with gates which are able to be opened easily and ramps where stairs would normally be. The use of bars for aiding movement and choice of materials is an important design consideration and can not only improve safety but also improve the experience of a play area for children with disabilities.

9.25. The layout of open spaces, particularly those accessible to the community, must consider gradients, the provision of appropriate lighting, signage and seating for those with disabilities and the elderly. Potential obstacles and the materials of surfaces are important for wheelchair users, mobility scooters and those with buggies. The provision of disabled toilets and dedicated disabled car parking spaces is also important.

10. Submission of a Supporting Statement

10.1. Applicants will be required to submit a supporting statement demonstrating how they have considered the requirements set out in the Harlow Local Development Plan and

the specific requirements of this SPD. The Information Box below sets out what should be included in any supporting statement, whether this forms part of the Design and Access Statement and/or a Health Impact Assessment.

Information Box 13: Supporting Statement Information

Green Infrastructure and Blue Infrastructure in new developments

All new developments should provide information on the GI, and where appropriate BI, provision relevant to the scale and nature of their proposal including management and maintenance. Commercial developments should also consider how they can improve, connect and enhance GI either within their developments or outside their proposals.

Where appropriate applicants will need to demonstrate how they have considered and taken into account the existing landscape and whether a Landscape Visual Impact Assessment and/or a Character Assessment will be useful tools to assist this process.

Applicants should consider the following when addressing GI in their statement:

- **Is the GI multifunctional providing opportunities for the local community and nature?**
- **What are the opportunities for the provision of GI and BI on the site either through additional enhancements or new provision?**
- **Does the GI improve the setting and quality of the place?**
- **Does the GI encourage activity and improve health and wellbeing?**
- **Does it protect and enhance heritage and nature and support food production?**
- **Will it assist in adapting to changes in climate and mitigating flood risk?**
- **What the scheme is required to provide (net-gain/SuDs, playing pitches etc)**

Applicants should consider including in their supporting statement the use of additional tools when designing GI including those set out in this SPD. Furthermore, applicants should complete the HGGT Sustainability Checklist and submit this alongside the supporting statement.

Biodiversity

Applicants should consider the Essex Biodiversity Validation Checklist and any other useful publications. A statement should set out the measures which have been used to protect and enhance biodiversity on the site.

Where the provision of Biodiversity Net-Gain is required, the Council will require a Biodiversity Net Gain Plan to be submitted to the Council for approval as a pre-commencement condition of planning approval incorporating information obtained using the biodiversity metric.

Where necessary applicants may need to undertake separate ecological assessments in relation to protected species and protected sites. This should be undertaken by a suitable qualified ecologist.

Trees, hedgerows and woodland

Sites which include trees will be required to undertake the necessary tree surveys and subsequent Arboricultural Impact Assessment if appropriate. These assessments should be undertaken by suitably qualified arboriculturalists and submitted with or alongside the GI strategy for the scheme. Applicants should also include details on tree canopy gain/loss in any supporting material.

Open Space Provision

Applicants should use the Open Space Typology Map in Appendix 1 and update it where appropriate. If an update is required this should be submitted to the Council for checking. Once agreed, the following information should then be provided with a supporting statement on open space provision:

- Any calculations which show the deficit or surplus of public open space in the area using the standards set out in this SPD
- Any loss of existing public open space including size and type (in accordance with the requirements of Policy L2 of the HLDP)
- Information on the size of any proposed public open space, play space or sports facilities in hectares (ha)
- Where it has been agreed that off-site contributions are required, the facility or open space that the contribution will be paid towards including location.
- Location of the proposed public open space, sports facilities or recreation facility within the development and how it will be accessed by residents

Alongside the above, and where appropriate, the following information should also be provided in a supporting statement:

- Details of supporting ancillary facilities where appropriate, such as changing facilities, storage or parking areas or the types of equipment to be provided, e.g. ball courts
- Design of the facility/ public open space in accordance with this SPD, Design Guide and other legislation including where appropriate the National Model Design Code
- Information on the management and maintenance of the facility or open space
- Any further necessary mitigation – this may include financial contributions to enhance routes to existing open space or to improve the space

Applicants should use the relevant calculations for the provision of playing pitches and sports facilities and set these calculations out in the supporting statement. This should

include any necessary lifecycle costs.

Design of open space and built facilities

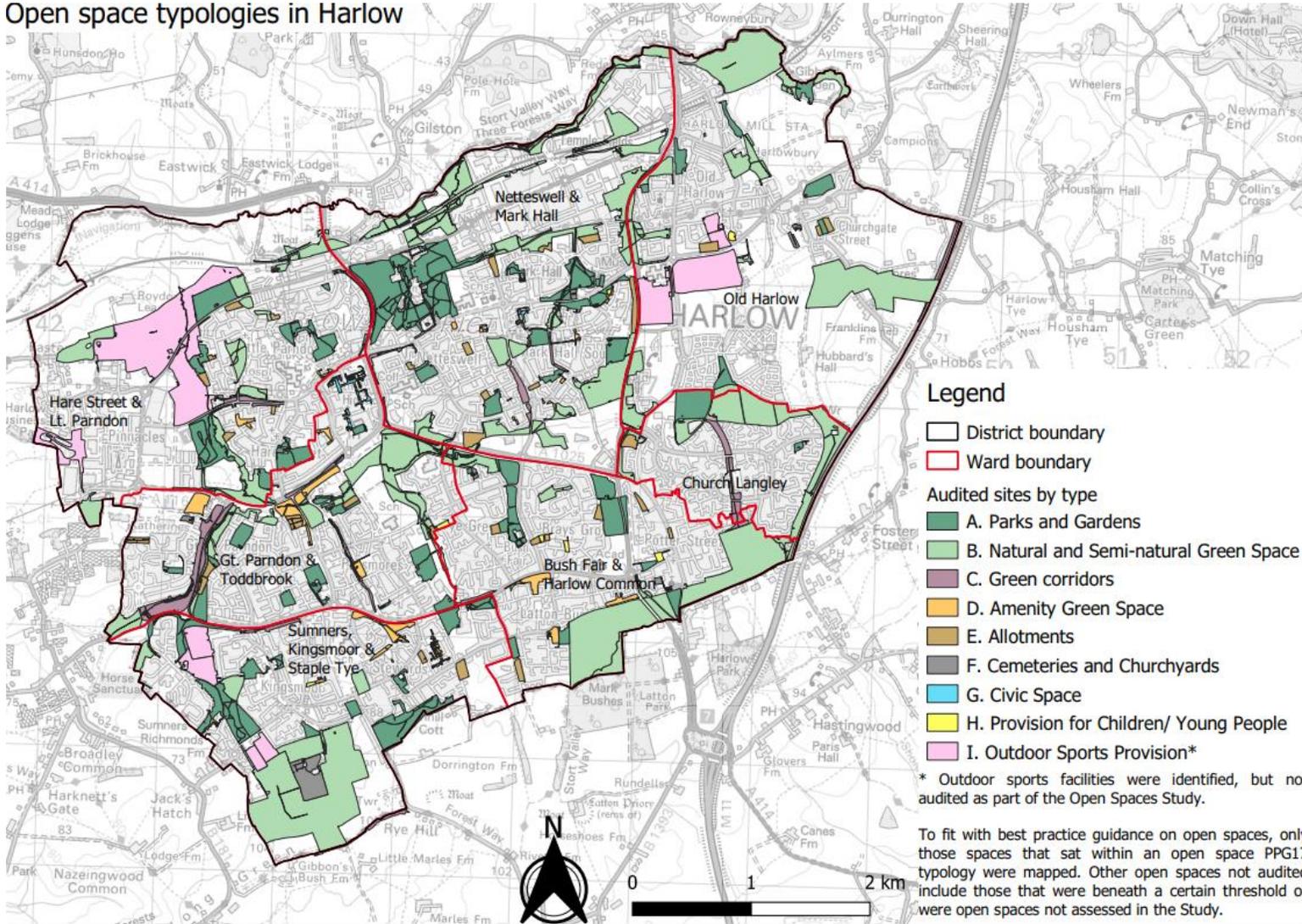
The design of the proposed GI, open space or play equipment should be set out in a statement to the authority, through for example the Design and Access Statement. This should also demonstrate how inclusivity and opportunities for all parts of the community to access and use these facilities has been considered. Standards produced by Sport England and other bodies/organisations should be considered including Sport England's Active Design Guide

- 10.2. Applicants for larger schemes should actively engage with their local communities, in accordance with the Council's adopted Statement of Community Involvement, and the Council prior to the submission of an application to understand the needs and desires of GI to ensure it is suitable for their particular scheme. Applicants are encouraged to engage with Sport England in advance of submitting a planning application where the application involves the loss of sports facilities or where new on-site sports provision is proposed.

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APPENDIX 1

Open space typologies in Harlow



APPENDIX 2: Public Open Space Standards

Table 1: DISTRICT PARKS AND GARDENS (> 15ha)

Accessibility standard (km)	Quantity standard per 1,000 population (ha)
3.2	2.5
<p>The accessibility standard above reflects the current maximum distance of the existing Town Park in Harlow and other standards adopted elsewhere in Essex. The quantity standard enables the current level of provision to be maintained, reflecting the district's only Town Park which draws people from a catchment of over 3km.</p>	

Table 2: LOCAL PARKS AND GARDENS (<15ha)

Accessibility standard (km)	Quantity standard per 1,000 population (ha)
0.4	2
<p>The accessibility standard reflects the demand for open space provision and other benchmark standards as well as demand for local parks and gardens.</p> <p>In respect of quantity, this standard enables current provision to be maintained but also helps the Council focus resources on areas where the Open Space and GI Study identified that local parks and gardens are below-average quantity.</p>	

Table 3: DISTRICT NATURAL AND SEMI-NATURAL GREEN SPACE (> 15ha)

Accessibility standard (km)	Quantity standard per 1,000 population (ha)
3.2	2
<p>The accessibility standard reflects the maximum distance of existing Harlow residents from current provision of district scale natural and semi-natural green spaces. The quantity standard reflects current provision and existing access to sites which is generally good on a district wide scale.</p>	

Table 4: LOCAL NATURAL AND SEMI-NATURAL GREEN SPACE (<15ha)

Accessibility standard (km)	Quantity standard per 1,000 population (ha)
0.4 (including District green space as equivalent provision)	3
<p>The accessibility standard generally reflects the willingness of residents to walk 10 minutes to reach a park or green space, local demand for provision and Natural England's expectations of distances to natural green spaces. The quantity standard is higher than other benchmarked standards and reflects current provision in Harlow, i.e. the high existing provision of Green Wedges, and local needs. It is lower than existing provision in Harlow but higher than most other benchmark standards to help maintain high standards of GI through the Green Wedge/Green Finger network.</p>	

Table 5: GREEN CORRIDORS	
Accessibility standard (km)	Quantity standard per 1,000 population (ha)
N/A	N/A
<p>There are no specific accessibility standards for green corridors as they act as 'green' access routes, rather than a destination to which residents should have good access. Instead applicants should refer to policies in the HLDP which explain the roles of Green Fingers in particular in respect of providing links, wildlife corridors and footpaths/cycleways, etc., and Chapter 1 of this SPD in relation to GI. The HLDP policies also provide criteria for GI and landscaping in new developments.</p> <p>There are also no specific quantity standards for green corridors, although it must be noted that there is at least one green corridor, whether that is a Green Wedge, Green Finger or other open space, that runs through each neighbourhood in Harlow. The HLDP requires Green Fingers and Green Wedges to be retained and protected and, where possible, that new ones should be designated.</p>	

Table 6: AMENITY GREEN SPACE/OTHER OPEN SPACES	
Accessibility standard (km)	Quantity standard per 1,000 population (ha)
0.4	0.4
<p>The above accessibility standard applies to both amenity green spaces as described in the typologies above, as well as parks and gardens which also serve as important amenity spaces</p>	

whilst also offering other functions and features. The standard reflects other benchmarking undertaken and reasonable distances residents are willing to travel to reach an amenity space.

The quantity standard reflects broadly the national benchmark standards of 0.6ha but has been reduced slightly, to reflect the level of provision already in the area including the higher requirement for parks and gardens in Harlow. Together, amenity green space and local parks/gardens provide more than national standards (2.4ha compared to 1.4ha).

These standards only apply to public amenity areas and public open spaces. Private amenity space standards can be found in the Design Guide Addendum e.g. private garden space, or communal garden space for flats.

Table 7: ALLOTMENTS

Accessibility standard (km)	Quantity standard per 1,000 population (ha)
0.8	0.25 (or 20 plots)

There is no nationally recommended standard for access to allotments, however it is broadly accepted that allotment should be accessed either on foot or bike and therefore proximity to residential areas is important. The proposed standard, although less than some other benchmarked sites, is considered achievable in Harlow and reflects the original design of the New Town and aspirations to reduce car-dependency.

The quantity standard reflects roughly the existing provision in Harlow including new sites to be provided and which have been allocated through the HLDP.

The [National Allotment Society](#) standards suggest approximately 20 allotments per 1,000 households. This equates to 0.125 ha per 1,000 population based on an average plot size of 250 square metres, however this is the total area of allotment plots only.

The measurements in the table above are based on the total size of each allotment site and also allows ancillary infrastructure, paths, communal areas, etc. In neighbourhoods where there is demand for allotments which cannot be met in the short term, the Council will consider reducing the plot size of allotments.

Table 8: PROVISION FOR CHILDREN AND YOUNG PEOPLE (CHILDREN'S PLAY

SPACE)	
Accessibility standard (km)	Quantity standard per 1,000 population (ha)
0.4 (Local Area of Play or LAP or Local Equipped Area of Play or LEAP)	1 LEAP per 2,000 population
0.8 (Neighbourhood Equipped Area of Play or NEAP)	1 NEAP per 10,000 population or 0.25ha of equipped areas of play per 1,000 population (Fields in Trust Standards)*
<p>The accessibility standards set out above reflect benchmark standards and a willingness of residents to walk approximately 10 minutes to access children’s play facilities. The quantity reflects broadly the existing provision and also the requirement to address gaps in provision across Harlow, particularly through new strategic developments allocated in the HLDP.</p> <p>*The 0.25ha is taken from the Fields In Trust standards and should be used as a guide for providing equipped play areas. The 0.25ha can consist of LAP, LEAPs, NEAPs and MUGAs. Chapter 9 provides specific dimensions for these types of equipped areas as referenced by Fields In Trust which should be used when designing developments.</p>	

Table 9: CEMETERIES AND CHURCHYARDS	
Accessibility standard (km)	Quantity standard per 1,000 population (ha)
N/A	N/A
<p>There are no specific standards for cemeteries and churchyards, although it is expected that some form of recreational function is provided through any extensions to the existing crematorium in Harlow as allocated on the HLDP Policies Map.</p>	

Table 10: CIVIC SPACE	
Accessibility standard (km)	Quantity standard per 1,000 population (ha)
3.2 at district-scale	N/A

The accessibility standard reflects the function of civic space as providing a central meeting place which is already well provided within the town centre. The 3.2km distance threshold is adopted as this reflects the whole town of Harlow, which the existing civic space serves. There are no quantity standards for civic space as provision of civic space is provided for the whole town. It is also not appropriate to develop a quantity standard for civic space, as its function is not related to quantity.

APPENDIX 3: Building With Nature Standards Framework (summary)

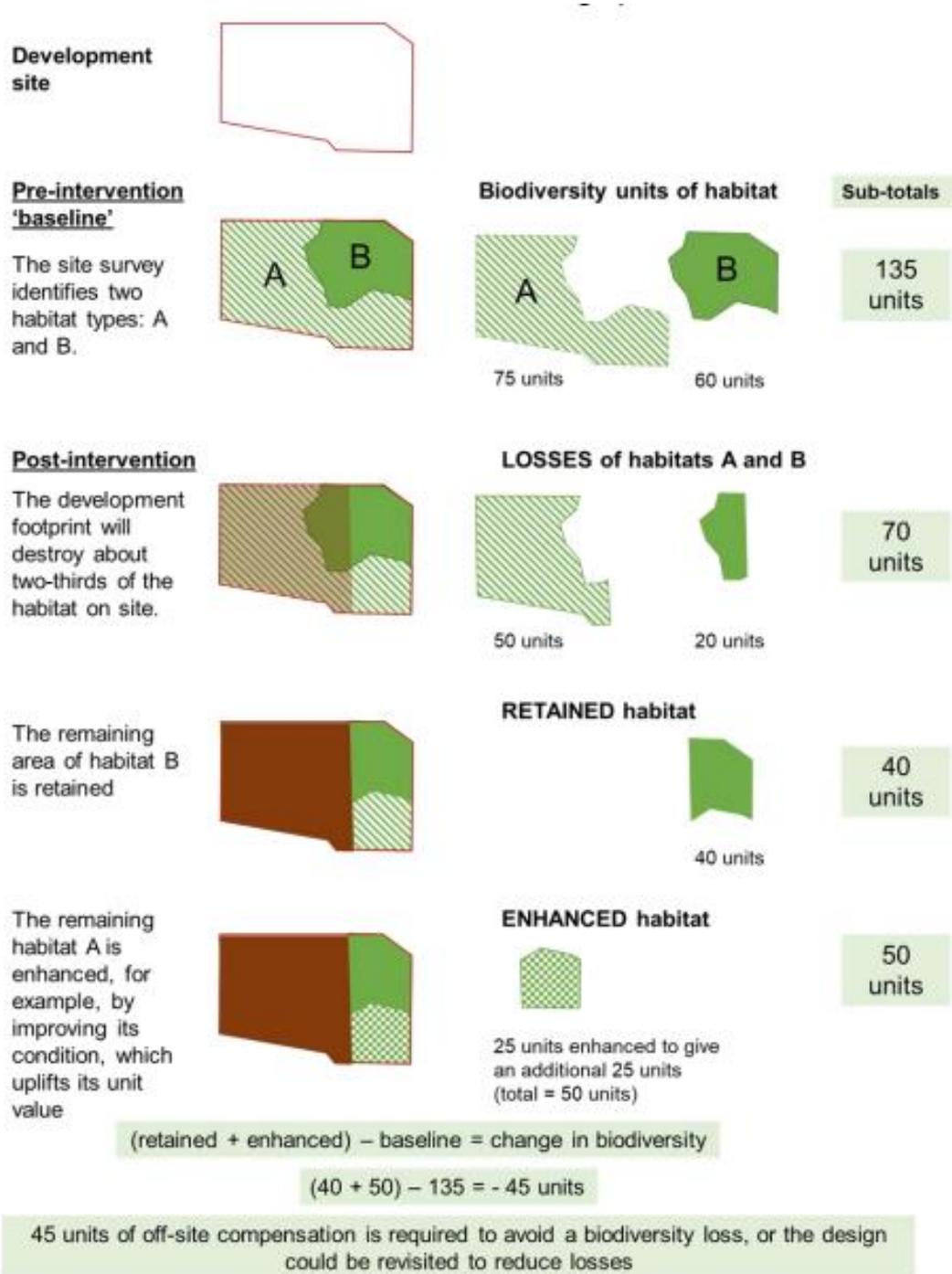
Core Standards:	
Standard 1	Optimises Multifunctionality and Connectivity Optimises multifunctionality and connectivity within the boundary of the project and links with existing and planned for green infrastructure in the surrounding area.
Standard 2	Positively responds to the Climate Emergency Is designed to be climate resilient by incorporating mitigation and adaptations that respond to the impacts of climate change. The green infrastructure is designed to promote low carbon behaviours and contributes to achieving zero

	carbon development by optimising carbon sequestration and demonstrating low carbon approaches to design, construction, and long-term maintenance
Standard 3	Maximises Environmental Net Gains Is designed to actively mitigate any unavoidable harmful environmental impacts of development on soil and air quality and to minimise light and noise pollution. In addition, it delivers environmental net gains, including improving air and water quality and wherever possible includes quiet spaces for people and wildlife
Standard 4	Champions a Context Driven Approach Positively responds to the local context, including the physical environment, such as landscape and urban character and social, economic, and environmental priorities, including the evidenced needs and strengths of existing and future local communities
Standard 5	Creates Distinctive Places Is integral to the project and is designed to reinforce local distinctiveness and/or create a distinctive sense of place.
Standard 6	Secures Effective Place-keeping Is subject to management arrangements that demonstrate a commitment to effectively implement, establish and maintain features at all stages of the development process. This should include details of funding, governance, maintenance, monitoring, remediation and, where appropriate, community involvement and stewardship.
Well-being Standards:	
Standard 7	Brings Nature Closer to People Is close to where people live, work, learn, play and/or visit, and is designed to optimise use and enjoyment for everyone across the year, to maximise health and wellbeing outcomes and to promote active living for existing and future communities
Standard 8	Supports Equitable and Inclusive Places Is designed to encourage and enable everyone, including those from vulnerable or excluded groups, to use and enjoy it, to help reduce health inequalities and to build a shared sense of community and belonging
Water Standards:	
Standard 9	Delivers Climate Resilient Water Management Is integral to sustainable drainage using above ground features to manage flood risk, maintain the natural water cycle and improve water quality within the boundary of the project and at a catchment scale. The green infrastructure is designed to be drought resistant and wherever possible, includes measures for the retention and reuse of rainwater
Standard 10	Brings Water Closer to People Is designed to integrate water, including areas of standing water, flowing water, seasonal and ephemeral features, to bring additional amenity and wildlife benefits.
Wildlife Standards:	

Standard 11	Delivers Wildlife Enhancement Optimises long term and climate resilient net benefits for nature, by retaining and enhancing existing ecological assets and creating locally relevant new habitats within the boundary of the project. Wildlife measures are secured at all stages of implementation and where applicable, across multiple phases of development
Standard 12	Underpins Nature's Recovery Creates effective links with existing and planned for ecological features and networks beyond the boundary of the project to support the creation and restoration of resilient ecological networks in the wider landscape

APPENDIX 4: Example of BNG Calculation

(Natural England's Biodiversity)



APPENDIX 5: Principles and rules when applying the BNG Metric

(Natural England's Biodiversity Metric User Guide)

Principle 1: The metric does not change the protection afforded to biodiversity. Existing levels of protection afforded to protected species and habitats are not changed by use of this or any other metric. Statutory obligations will still need to be satisfied.

Principle 2: Biodiversity metric calculations can inform decision-making where application of the mitigation hierarchy and good practice principles¹⁴ conclude that compensation for habitat losses is justified.

Principle 3: The metric's biodiversity units are only a proxy for biodiversity and should be treated as relative values. While it is underpinned by ecological evidence the units generated by the metric are only a proxy for biodiversity and, to be of practical use, it has been kept deliberately simple. The numerical values generated by the metric represent relative, not absolute, values.

Principle 4: The metric focuses on typical habitats and widespread species; important or protected habitats and features should be given broader consideration.

- Protected and locally important species needs are not considered through the metric, - they should be addressed through existing policy and legislation.
- Impacts on protected sites (e.g. SSSIs) and irreplaceable habitats are not adequately measured by this metric. They will require separate consideration which must comply with existing national and local policy and legislation. Data relating to these can be entered into the metric, so as to give an indicative picture of the biodiversity value of the habitats present on a site, but this should be supported by bespoke advice.

Principle 5: The metric design aims to encourage enhancement, not transformation, of the natural environment. Proper consideration should be given to the habitats being lost in favour of higher-scoring habitats, and whether the retention of less distinctive but well-established habitats may sometimes be a better option for local biodiversity. Habitat created to compensate for loss of natural or semi-natural habitat should be of the same broad habitat type (e.g. new woodland to replace lost woodland) unless there is a good ecological reason to do otherwise (e.g. to restore a heathland habitat that was converted to woodland for timber in the past¹⁵).

Principle 6: The metric is designed to inform decisions, not to override expert opinion. Management interventions should be guided by appropriate expert ecological advice and not just the biodiversity unit outputs of the metric. Ecological principles still need to be applied to ensure that what is being proposed is realistic and deliverable based on local conditions such as geology, hydrology, nutrient levels, etc. and the complexity of future management requirements.

Principle 7: Compensation habitats should seek, where practical, to be local to the impact. They should aim to replicate the characteristics of the habitats that have been lost, taking account of the structure and species composition that give habitats their local distinctiveness. Where possible compensation habitats should contribute towards nature recovery in England by creating 'more, bigger, better and joined up' areas for biodiversity.

Principle 8: The metric does not enforce a mandatory minimum 1:1 habitat size ratio for losses and compensation but consideration should be given to maintaining habitat extent and habitat parcels of sufficient size for ecological function. A difference can occur because of a difference in quality between the habitat impacted and the compensation provided. For example, if a habitat of low distinctiveness is impacted and is compensated for by the creation of habitat of higher distinctiveness or better condition, the area needed to compensate for losses can potentially be less than the area impacted. However, consideration should be given to whether reducing the area or length of habitat provided as compensation is an appropriate outcome.

Rule 1: Where the metric is used to measure change, biodiversity unit values need to be calculated prior to the intervention and post-intervention for all parcels of land / linear features affected.

Rule 2: Compensation for habitat losses can be provided by creating new habitats, or by restoring or enhancing existing habitats. Measures to enhance existing habitats must provide a significant and demonstrable uplift in distinctiveness and/or condition to record additional biodiversity units.

Rule 3: 'Trading down' must be avoided. Losses of habitat are to be compensated for on a "like for like" or "like for better" basis. New or restored habitats should aim to achieve a higher distinctiveness and/or condition than those lost. Losses of irreplaceable or very high distinctiveness habitat cannot adequately be accounted for through the metric.

Rule 4: Biodiversity unit values generated by biodiversity metric 3.0 are unique to this metric and cannot be compared to unit outputs from version 2.0, the original Defra metric or any other biodiversity metric. Furthermore, the three types of biodiversity units generated by this metric (for area, hedgerow and river habitats) are unique and cannot be summed.

Rule 5: It is not the area/length of habitat created that determines whether ecological equivalence or better has been achieved but the net change in biodiversity units. Risks associated with creating or enhancing habitats mean that it may be necessary to create or enhance a larger area of habitat than that lost, to fully compensate for impacts on biodiversity.

Rule 6: Deviations from the published methodology of biodiversity metric 3.0 need to be ecologically justified and agreed with relevant decision makers. While the methodology is expected to be suitable in the majority of circumstances it is recognised that there may be exceptions. Any local or project-specific adaptations of the metric must be transparent and

fully justified.

APPENDIX 6: Acronyms

SPD	Supplementary Planning Document
HLDP	Harlow Local Development Plan
GI	Green Infrastructure
BNG	Biodiversity Net-Gain
BwN	Building With Nature
NPPF	National Planning Policy Framework
NPPG	National Planning Practice Guidance
HGGT	Harlow Gilston Garden Town
BGP	Biodiversity Gain Plan
LEAP	Local Equipped Area of Play
NEAP	Neighbourhood Equipped Area of Play
MUGA	Multiuse Games Area
LAP	Local Area of Play
IDP	Infrastructure Delivery Plan
KM	Kilometres
SQM	Square Metres
HA	Hectares

APPENDIX 7: Useful Information/Links

Policy Background	Evidence Base/ Supporting Documents	Registered Groups/Bodies Website	Biodiversity	GI
Harlow Local Development Plan	Harlow Open Space and GI Strategy Part 1 Part 2	Fields in Trust	Biodiversity Metric 3.0	Natural Capital Tool
NPPF and NPPG	Harlow Sports Facilities and Playing Pitches Study	Sport England	Essex Biodiversity Validation Checklist	Ecometric
Harlow Design Guide SPD and Addendum	Part 1 Part 2 Part 3	National Allotment Society	NHBC, Barrett Homes and RSPBs 2021 publication	Building With Nature
HGGT Garden Town IDP		Natural England	'Biodiversity in new housing developments: creating wildlife-friendly communities'	Green Flag Award
HGGT Vision and Design Guide				

HGGT Sustainability Checklist	Sport England Playing Pitch Calculator			Essex draft GI Standards
HGGT IDP	Sport England Lifecycle Costs			
Harlow Town Centre Masterplan Framework SPD	Sport England Active Design			Essex GI Strategy
Environment Act 2021	Sport England Artificial Surfaces for Outdoor Sports and Artificial Sports Lighting Design Guide			
	Secure by Design			

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