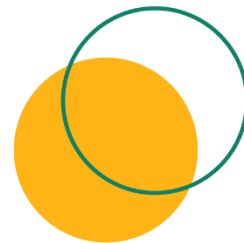




Balancing Growth with Green



Biodiversity Net Gain Assessment



Philip Gomes
Fen Farm, Rabley Heath Road, Welwyn, Hertfordshire, AL6 9UA

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Disclaimer

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1 Introduction

1.1 Overview

Philip Gomes ('the client') is seeking consent for a proposed development at Fen Farm, Rabley Heath Road, Welwyn, Hertfordshire, AL6 9UA (thereafter referred to as the 'potential development site'), which is within the North Hertfordshire Council.

The proposal involves demolition of the existing stables and outbuildings to accommodate for the construction of a new dwelling.

ACP Consultants Ltd. was instructed by the client to produce a Biodiversity Net Gain Assessment to accompany the planning application to the North Hertfordshire Council for consent to undertake the proposed work. Major developments are required to submit a Biodiversity Net Gain Assessment demonstrating biodiversity enhancements that contribute to the objectives of the latest NHC Local Plan. Relevant planning policy and legislation can be found in Appendix E.

Local Authorities are tasked with determining new development and local planning applications against a wide range of social, economic and environmental criteria. The purpose of this report is to assess whether the development proposal is compliant with the relevant local policies in terms of ecological impact and whether the Proposed Development will result in a biodiversity net gain.

This assessment has been carried out in accordance with good practice guidelines, including the National Planning Policy Framework (2023) and applicable local supplementary guidance.

The remainder of this report is presented in the following order:

- Section 2: Existing Site Conditions
- Section 3: Biodiversity Net Gain
- Section 4: Conclusions

1.2 Objectives

- Assess the proposed landscape plans and compare this to the current habitats on site to see if the proposed residential development will result in a biodiversity net gain.
- Demonstrate the sites biodiversity loss or gain through habitat impact assessment calculations.

2 Existing Site Conditions

2.1 Habitats On-site

The area within the red-line boundary comprises seven outbuildings (sheds/stables) alongside other associated developed land (areas of hardstanding) and is part of a wider private residential site. There are areas of vegetated garden (consisting primarily of modified grassland) present adjacent to the site boundary. Mature and semi-mature trees are also present on-site.

UKHab classifications present on-site were determined during a site visit carried out by David Stanley and Ayan Chakravartty on the 26th of November 2024, and included Buildings (ub15), Other Developed Land (ub16), Vegetated Garden (828) and Trees (200). As existing plans provided by the client do not show all habitat types, information collected during the site visit was used to inform the on-site baseline during calculations.

The existing and proposed plans provided by the client can be found in Appendix A, alongside a UKHab map in Appendix D.



Figure 2.1 – Developed Land (ACP, 2024)



Figure 2.2 – Trees and Vegetated Garden (ACP, 2024)

3 Biodiversity Net Gain

3.1 Calculation

As mentioned in previous sections, all developments are required to submit an ecology assessment demonstrating the sites biodiversity loss or gain using a Biodiversity Metric.

Biodiversity Net Gain is calculated using the Statutory Biodiversity Metric tool to determine if the Proposed Development will result in a habitat biodiversity net loss or gain. The tool helps to calculate the biodiversity value of a site before and after the Proposed Development.

The percentage net change by measuring many factors including:

- The existing habitats on site.
- How distinctive the habitats are on site.
- Habitat condition.
- Habitats to be retained and enhanced within the development.
- Habitats to be lost within the development.
- Any indirect negative impacts.
- Habitat creation on site, and
- Habitat enhancement.

The net change result is displayed as a percentage loss (highlighted red) or a gain (highlighted green).

The site received an on-site net percentage change of +23.13% (Gain), with trading rules not satisfied as a result of the Proposed Development. It is understood that existing vegetated garden areas and trees are to be retained, with much of the remaining site (primarily developed land) being converted into a private residential garden for the new proposed dwelling (this area has therefore been recorded as 'vegetated garden' in calculations).

As a result, the Proposed Development offers sufficient ecological benefits and is expected to attract or provide enough essential habitat for fauna. Proposal details which show that the footprint of buildings is to be reduced, can be found in Appendix A. It is understood that the existing trees are to be retained.

Statutory Biodiversity Metric tool results can be found in Appendix B, alongside a Conditions Assessment in Appendix C.

It can, therefore, be concluded that the Proposed Development is considered to comply with national, regional or local planning policies and offers ecological improvements to the site and surrounding area.

4 Conclusions

This report provides an assessment of the following potential key impacts associated with the construction and operational phases of the Proposed Development at Fen Farm, Rabley Heath Road, Welwyn, Hertfordshire, AL6 9UA. The aims of this report were to:

- Assess the proposed landscape plans and compare this to the current habitats on site to see if the proposed residential development will result in a biodiversity net gain; and
- Demonstrate the sites biodiversity loss or gain through habitat impact assessment calculations.

The scheme offers ecological improvements to the landscape by reducing the overall footprint of developed land and increasing the area of vegetated gardens. The proposed changes resulted in an on-site net percentage change of +23.13% (Gain) in habitat units, with trading rules satisfied as a result of the Proposed Development. As a result, the Proposed Development offers sufficient ecological benefits.

It can, therefore, be concluded that the Proposed Development is considered to comply with national, regional or local planning policies and offers ecological improvement to the site and surrounding area.

Appendices

Appendix A: UKHab Map

Appendix B: Existing and Proposed Site Plans

Appendix C: Conditions Assessment

Appendix D: UKHab Map

Appendix E: Planning Policy & Legislation

Appendix A: Existing and Proposed Plans (Source: Client)

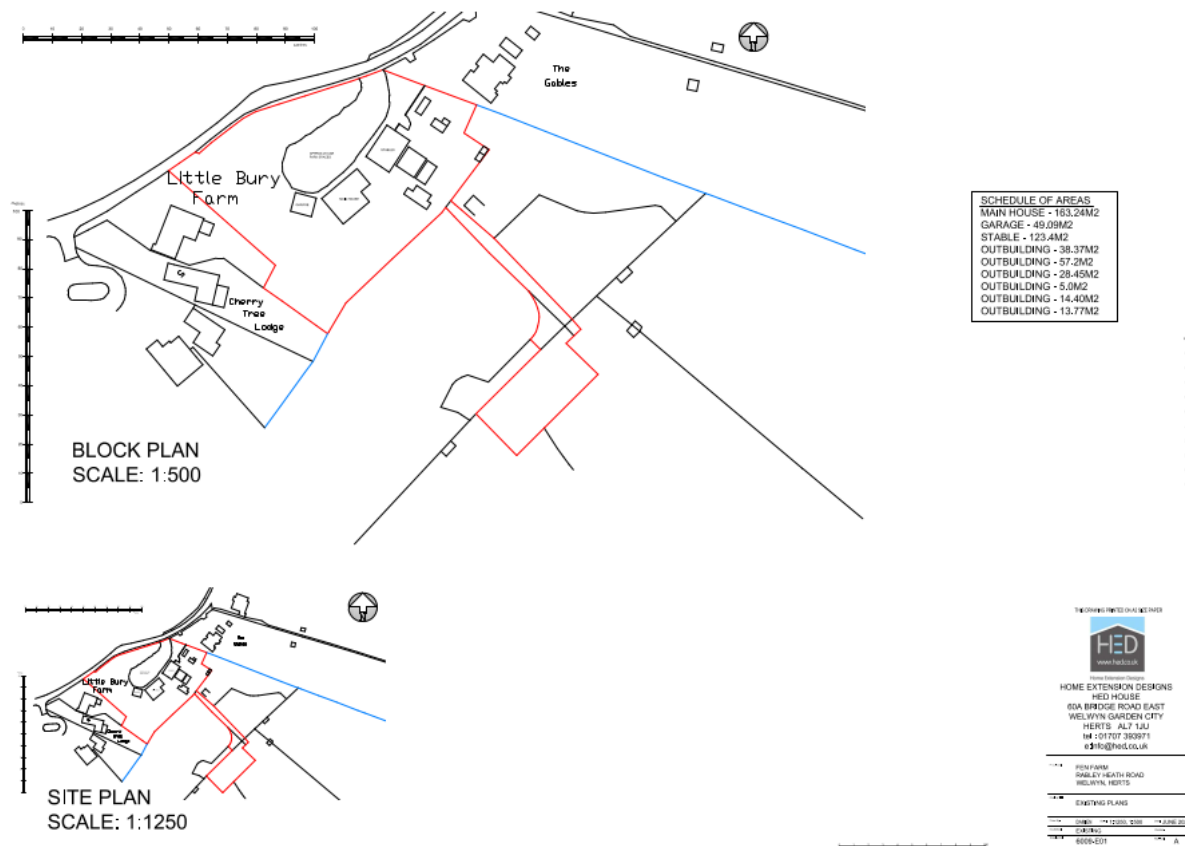


Figure 1: Existing Plans

Preliminary Ecological Appraisal
Fen Farm, Rabley Heath Road, Welwyn, Hertfordshire, AL6 9UA

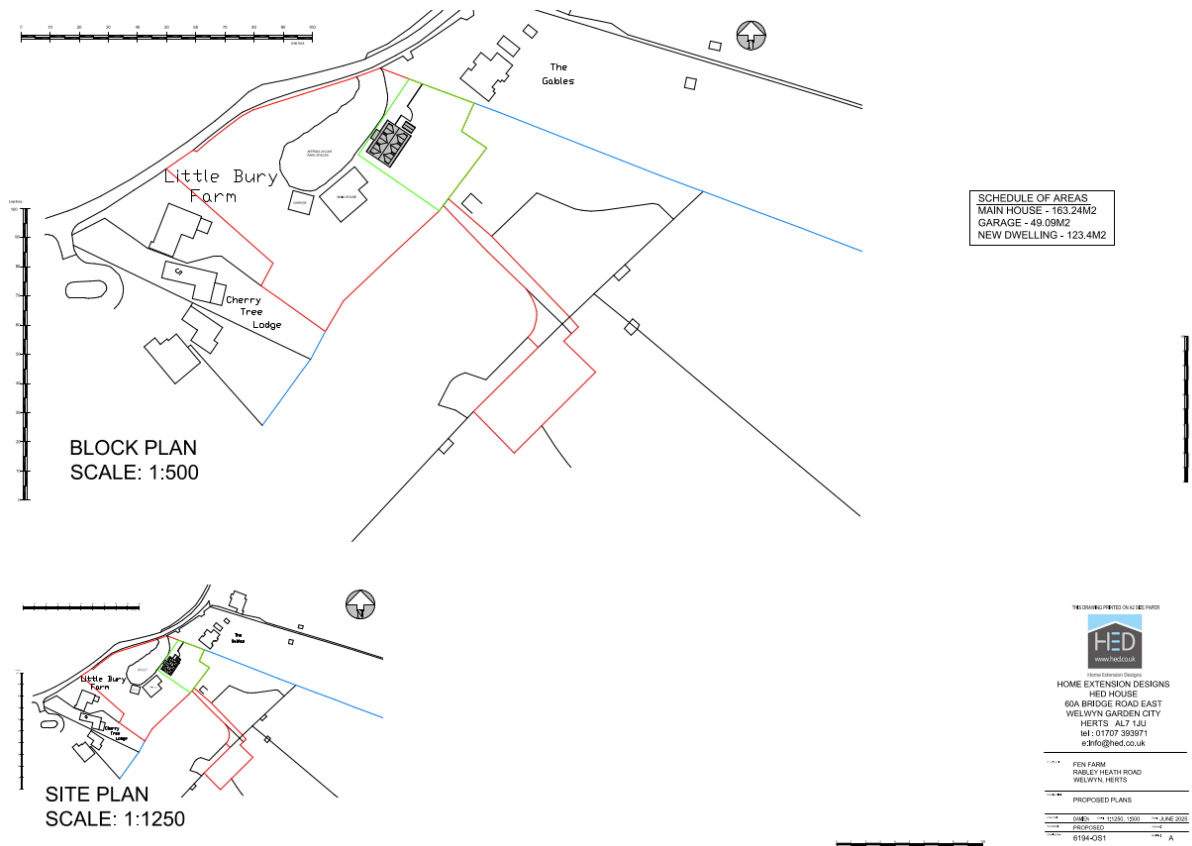


Figure 2: Proposed Plans

Appendix B: Biodiversity Net Gain Calculations

FINAL RESULTS				
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	0.08		
	<i>Hedgerow units</i>	0.00		
	<i>Watercourse units</i>	0.00		
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	23.13%		
	<i>Hedgerow units</i>	0.00%		
	<i>Watercourse units</i>	0.00%		
Trading rules satisfied?	Yes ✓			

Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
<i>Habitat units</i>	10.00%	0.33	0.36	0.00	No additional area habitat units required to meet target ✓
<i>Hedgerow units</i>	10.00%	0.00	0.00	0.00	No additional hedgerow units required to meet target ✓
<i>Watercourse units</i>	10.00%	0.00	0.00	0.00	No additional watercourse units required to meet target ✓

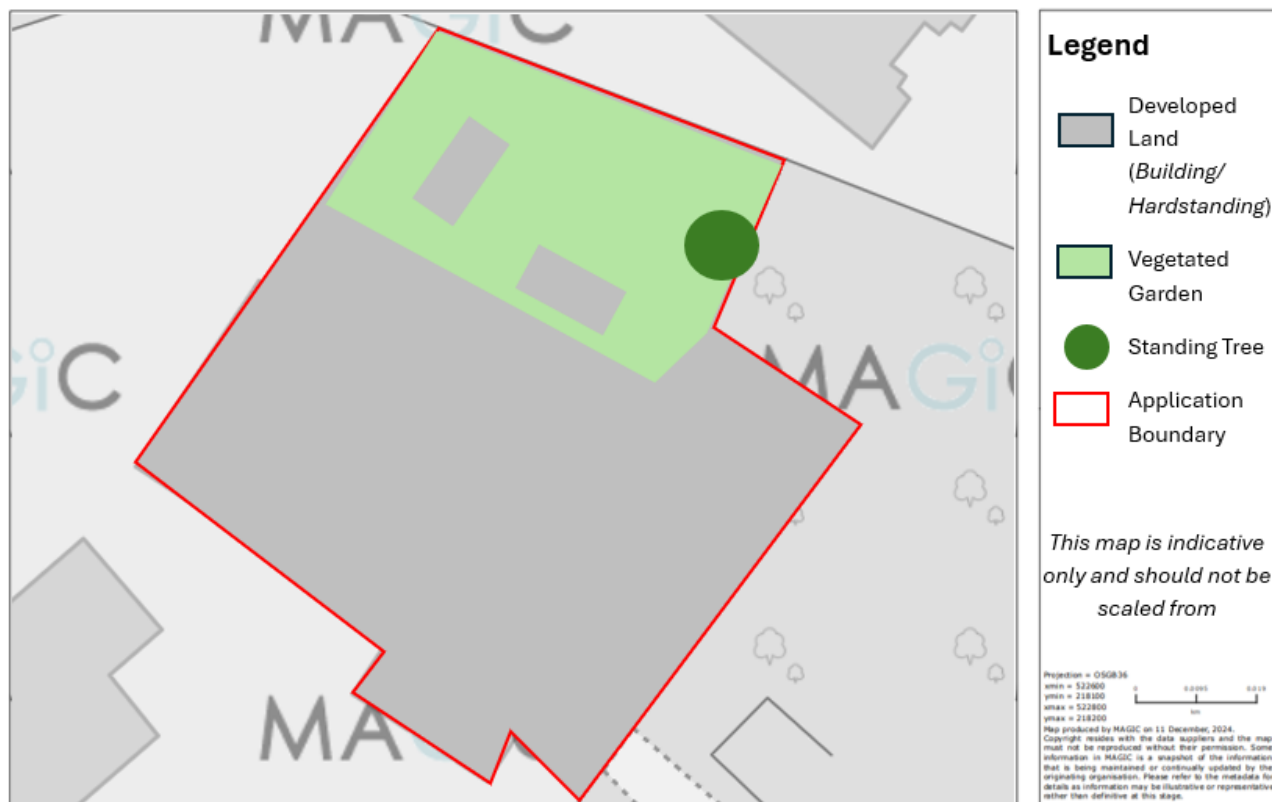
Appendix C: Conditions Assessment

Habitat Description			
Individual mature trees located on-site in garden areas.			
Individual trees (description applied to the urban or rural environment): Young trees over 7.5 cm in diameter at breast height whose canopies are not touching.			
Urban Perimeter / Linear Blocks and Groups (description applied to the urban environment only): Groups or stands of trees (size requirement as defined above) within and around the perimeter of urban land. This includes those along urban streets, highways, railways and canals, and also former field boundary trees incorporated into developments. Canopies should predominantly overlap continuously. Groups of urban trees that don't match the descriptions for woodland may be assessed within this category.			
On-site or off-site, site name and location	on-site	Survey date and Surveyor name	DS/AC - 26/11/2024
Limitations (if applicable)	n/a	Survey reference (if relating to a wider survey)	n/a
Grid reference	n/a	Habitat parcel reference	Fen Farm
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The tree is a native species (or at least 70% within the block are native species).	Y	
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Y	
C	The tree is mature (or more than 50% within the block are mature) ¹ .	N	
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	Y	
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	N	
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Y	
Number of criteria passed		4	
Condition Assessment Result (out of 6 criteria)	Condition Assessment Score	Score Achieved x/√	
Passes 5 or 6 criteria	Good (3)		
Passes 3 or 4 criteria	Moderate (2)	x	
Passes 2 or fewer criteria	Poor (1)		
Note that 'Fairly Good and Fairly Poor' condition categories are not available for this broad habitat type.			

Appendix D: UKHab Map

MAGiC

UKHab Map



Appendix E: Planning Policy & Legislation

This section summarises the relevant National and Local legislative and policy background, statutory and non-statutory guidelines relevant to the potential commercial development.

National Policy

National Planning Policy (December 2023)

The principal national planning policy guidance with respect to the potential development is the National Planning Policy Framework (NPPF). The most recent update of the NPPF was published in December 2023 by the Department for Communities and Local Government (DCLG). This guidance sets out the Government's planning policies for England and how they are expected to be applied. Three dimensions to sustainable development have been identified in the NPPF: economic, social, and environmental.

The NPPF Section 180 states that:

"Planning policies and decisions should contribute to and enhance the natural and local environment by:

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;*
- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;*
- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;*
- e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and*
- f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate."*

Section 181 states that:

"Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries."

Section 182 states that:

"Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to these issues. The conservation and enhancement of wildlife and cultural heritage are also important considerations in these areas and should be given great weight in National Parks and the Broads⁶³. The scale and extent of development within these designated areas should be limited, while development within their setting should be sensitively located and designed to avoid or minimise adverse impacts on the designated areas."

Section 183 states that:

“When considering applications for development within National Parks, the Broads and Areas of Outstanding Natural Beauty, permission should be refused for major development⁶⁴ other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest. Consideration of such applications should include an assessment of:

- a) the need for the development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy;*
- b) the cost of, and scope for, developing outside the designated area, or meeting the need for it in some other way; and*
- c) any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.”*

Section 185 states that:

“To protect and enhance biodiversity and geodiversity, plans should:

- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and steppingstones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and*
- b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.”*

Section 186 states that:

“When determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and*
- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.”*

Section 188 states that:

“The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.”

Relevant National Planning Practice Guidance (NPPG, 2016)

NPPG is a web-based resource which brings together planning guidance on various topics into one place. It was launched in March 2014 and coincided with the cancelling of the majority of Government Circulars which had previously given guidance on many aspects of planning.

The guidance note on 'Natural Environment' explains key issues in implementing policy to protect and enhance the natural environment, including local requirements. This has been referred to when preparing this report. It states that:

"Planning authorities need to consider the potential impacts of development on protected and priority species, and the scope to avoid or mitigate any impacts when considering site allocations or planning applications. Guidance on the law affecting Habitats Sites, protected species and SSSIs.

Natural England has issued standing advice on protected species. A protected species mitigation licence from Natural England may be required before any work can start."

The PPG also states that:

"Information on biodiversity and geodiversity impacts and opportunities needs to inform all stages of development (including site selection and design, pre-application consultation and the application itself). An ecological survey will be necessary in advance of a planning application if the type and location of development could have a significant impact on biodiversity and existing information is lacking or inadequate. Pre-application discussions can help to scope whether this is the case and, if so, the survey work required.

Even where an Environmental Impact Assessment is not needed, it might still be appropriate to undertake an ecological survey, for example, where protected species may be present or where biodiverse habitats may be lost.

As with other supporting information, local planning authorities should require ecological surveys only where clearly justified. Assessments should be proportionate to the nature and scale of development proposed and the likely impact on biodiversity. Further guidance on information requirements is set out in making an application."

Biodiversity net gain is mentioned in the PPG and states that:

"The National Planning Policy Framework encourages net gains for biodiversity to be sought through planning policies and decisions. Biodiversity net gain delivers measurable improvements for biodiversity by creating or enhancing habitats in association with development. Biodiversity net gain can be achieved on-site, off-site or through a combination of on-site and off-site measures. It may help local authorities to meet their duty under Section 40 of the Natural Environment and Rural Communities Act 2006."

Species and Habitats Legislation

The Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) consolidates all various amendments made to The Conservation (Natural Habitats & c.) Regulations 1994, in respect of England and Wales. The 1994 Regulations transposed the EC Habitats Directive 1992 (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora) into national law.

Annexes I and II of the Habitats Directive list (respectively) habitats and species for which member states are required to establish and monitor SACs. The EC Birds Directive provides a similar network of sites (SPAs) for all rare or vulnerable species listed in Annex I and all regularly occurring migratory species, with particular focus on wetlands of international importance.

Together with SACs, SPAs form a network of pan-European protected areas known as 'NATURA 2000' sites.

The Habitats Regulations also make it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade on the animals listed in Schedule 2, or pick, cut, uproot, destroy or trade in the plants listed in Schedule 4.

This legislation was amended in January 2021: The main changes to the 2017 Regulations are:

- “the creation of a national site network within the UK territory comprising the protected sites already designated under the Nature Directives, and any further sites designated under these Regulations
- the establishment of management objectives for the national site network (the ‘network objectives’)
- a duty for appropriate authorities to manage and where necessary adapt the national site network as a whole to achieve the network objectives
- an amended process for the designation of Special Areas of Conservation (SACs)
- arrangements for reporting on the implementation of the Regulations, given that the UK no longer provides reports to the European Commission
- arrangements replacing the European Commission’s functions with regard to the imperative reasons of overriding public interest (IROPI) test where a plan or project affects a priority habitat or species
- arrangements for amending the schedules to the Regulations and the annexes to the Nature Directives that apply to the UK.”

The Convention on Conservation of European Wildlife and Natural Habitats (Bern Convention 1979)

The Convention on Conservation of European Wildlife and Natural Habitats (Bern Convention 1979) aims to ensure conservation and protection of all wild plant and animal species and their natural habitats (listed in Appendices I and II of the Convention), to increase cooperation between contracting parties, and to afford special protection to the most vulnerable or threatened species (including migratory species).

The Wildlife and Countryside Act 1981 (as amended) (WCA 1981)

The WCA is the primary UK mechanism for statutory site designation (Sites of Special Scientific Interest [SSSIs]) and the protection of individual species listed under Schedule 1,2,5 and 8 of the Act, each subject to varying levels of protection.

The Countryside and Rights of Way Act 2000

This legislation strengthens the provision of the 1981 WCA (as amended), both in respect of statutory sites such as SSSIs and protected species. It also places a statutory obligation on Local Authorities and other public bodies to further conservation of biodiversity in the exercise of their functions, thus providing a statutory basis to the Biodiversity Action Plan (BAP) process, which began in 1994. Section 74 of the Act lists the habitat types and species of principal importance in England. The UK Biodiversity action Plan has now been superseded by the ‘UK Post-2010 Biodiversity Framework’ (July 2012), however, many of the species and habitats in the UK and local BAPs have not been updated and are still considered relevant to date.

A Bill to amend the Countryside and Rights of Way Act 2000 to extend the right of public access to the countryside, including to woodlands, the Green Belt, waters and more grasslands; and for connected purposes is currently in second reading in the House of Commons (November 2022).

Local Planning Policy

North Hertfordshire Local Plan (2011-2031)

“This Local Plan seeks to address the key issues facing North Hertfordshire and will set a strategic vision and spatial strategy for the District over the period 2011 to 2031.”

Policy SP12: Green Infrastructure, landscape, and biodiversity

“We will accommodate significant growth during the plan period whilst ensuring the natural environment is protected and enhanced. We will:

- a. *Protect, identify, manage and where possible enhance a strategic multi-functional network of green infrastructure;*
- b. *Consider and respect landscape character, scenic beauty and locally sensitive features, particularly in relation to the Chilterns Area of Outstanding Natural Beauty;*
- c. *Protect, enhance and manage designated sites in accordance with the following hierarchy of designations and features:*
 - *Internationally designated sites*
 - *Nationally designated sites*
 - *Locally designated sites;*
 - *Non-designated sites that include important habitats and species*
- d. *Protect, enhance and manage biodiversity networks including wildlife corridors, ancient woodlands and hedgerows, wetland and riverine habitats, Local Geological Sites, protected species, priority species and habitats, and non-designated sites of ecological value and ensure measurable net gains for biodiversity; and*
- e. *Protect other open spaces and support provision of new and improved open space.”*

Policy NE4: Biodiversity and geological sites

“Planning permission will only be granted for development proposals that appropriately protect, enhance and manage biodiversity in accordance with the hierarchy and status of designations and features listed in Policy SP12.

All development should deliver measurable net gains for biodiversity and geodiversity, contribute to ecological networks and the water environment, and/or restore degraded or isolated habitats where possible.

Applicants should, having regard to the status of any affected site(s) or feature(s):

- a) *Submit an ecological survey that is commensurate to the scale and location of the development and the likely impact on biodiversity, the legal protection or other status of the site;*
- b) *Demonstrate that adverse effects can be avoided and / or satisfactorily minimised having regard to the hierarchy of protection below: i*
 - i. *locating on an alternative site with a less harmful impact;*
 - ii. *providing adequate mitigation measures; or*
 - iii. *as a last resort compensated for.*

The acceptability of approach(es) to avoidance, mitigation and compensation will be commensurate with the status of the asset(s) likely to be affected by the application; Compensation is unlikely to be an appropriate solution for proposals affecting nationally or internationally designated sites other than in the most exceptional circumstances.

- c) *Include appropriate measures to manage construction impacts by demonstrating how existing wildlife habitats supporting protected or priority species will be retained, safeguarded and managed during construction;*
- d) *Integrate appropriate buffers of complimentary habitat for designated sites and other connective features, wildlife habitats, priority habitats and species into the ecological*

mitigation and design. The appropriateness of any buffers will be considered having regard to the status of the relevant habitat. 12 metres of complimentary habitat should be provided around wildlife sites (locally designated sites and above), trees and hedgerows. It may be necessary to exceed this distance for fragile habitats such as ancient woodland or to provide appropriate root protection for mature trees; and

- e) Provide a long-term management and monitoring plan including mitigation measures as necessary.*

Local Geological Sites are ratified by the Herts & Middlesex Wildlife Trust (HMWT) and are afforded the same protection as Local Wildlife Sites."