WHITESTONE
solar farm

WHITESTONE SOLAR FARM

Volume 6: Environmental Statement

6.20 Appendix 6.4: Biodiversity Net Gain Report

Application Document ref. EN0110020/APP/6.20
Revision 01
June 2026

Planning Act (2008)
Infrastructure Planning (Applications:
Prescribed Forms and Procedure)
Regulations 2009
Regulations 5(2)(a)

whitestonesolarfarm.co.uk

Document Status					
Version	**Purpose of Document**	**Authored by**	**Reviewed by**	**Approved by**	**Review Date**
Rev01	DCO Submission	ERM	TLT, DWD, Pershing, Whitestone Net Zero Ltd	Whitestone Net Zero Ltd	1 June 2026

Approval for Issue		
Whitestone Net Zero Ltd	[redacted]	1 June 2026

The following report and supporting infographics have been produced by human authors. Artificial Intelligence (AI) has not been used to create or alter the technical meaning of these materials. ERM is technology-enabled and may use technology including AI in service delivery, in compliance with all laws applicable to it. Where AI has been used as an administrative support function, this has been appropriately validated by human authors.

ERM take full ownership and responsibility for the report, notwithstanding that ancillary technology (including AI tools) may have been used in service provision.

Prepared by:

ERM

Prepared for:

Whitestone Net Zero Ltd

Contents

Tables

Figures (See Volume 3, Figures [EN0110020/APP/6.19])

Figure Number	Figure Title
3.1	Order Limits
5.1	Illustrative Masterplan
6.2.1	UK Habitat Classification: The Site
6.2.2	UK Habitat Classification: Cable Corridors
6.4.1	BNG Baseline Habitat
6.4.2	BNG Retained Habitat
6.4.3	BNG Post-Development Habitat

Appendices (See Volume 3, Appendices [EN0110020/APP/6.20])

Appendix Number	Appendix Title
6.2	UK Habitat Classification Report
6.4.1	River Condition Assessment
10.3	Water Framework Directive Assessment

Glossary

Term	Meaning
Cable Corridor	Corridor within which the high voltage cables would be constructed.
ES	Environmental Statement which presents the environmental information relating to the Proposed Development and assessment of Term Meaning potential effects. The ES has been prepared as part of the Application.
NSIP	NSIPs are large scale major development projects in England or Wales which fall into the following categories:

Term	Meaning
	• Energy; • Transport; • Waste; • Waste Water; and • Water. The primary legislation which applies to NSIPs is called the Planning Act 2008. When these types of development meet the threshold described in the Planning Act 2008, they need a Development Consent Order before they can be built.
Order Limits	Maximum extent of the Proposed Development comprising the Site, Cable Corridors, and Highways works.
The Applicant	Whitestone Net Zero Ltd
The Application	The Application to be submitted to the Secretary of State for Energy Security and Net Zero for a Development Consent Order.
The Proposed Development	The proposed Whitestone Solar Farm.
The Site	The land planned to be used for solar PV array and associated infrastructure, BESS, substation, landscaping and habitat enhancement. The Site is split into W1, W2, and W3
Whitestone 1 (W1)	The northern parcels of the Whitestone Solar Farm.
Whitestone 2 (W2)	The middle parcels of the Whitestone Solar Farm.
Whitestone 3 (W3)	The southern parcels of the Whitestone Solar Farm.

Acronyms

Acronym	Meaning
BAP	Biodiversity Action Plan
BESS	Battery Energy Storage System
BNG	Biodiversity Net Gain
BU	Biodiversity Unit
CIEEM	Chartered Institute of Ecology and Environmental Management
CIRIA	Construction Industry Research and Information Association
DCO	Development Consent Order
DEFRA	Department for Environment, Food and Rural Affairs
EIA	Environmental Impact Assessment
ERM	Environmental Resources Management
ES	Environmental Statement
HMMP	Habitat Management and Monitoring Plan
IEMA	Institute of Environmental Management and Assessment
ISEP	Institute of Sustainability and Environmental Professionals
LBAP	Local Biodiversity Action Plan

Acronym	Meaning
LNRS	Local Nature Recovery Strategy
LPA	Local Planning Authority
LWS	Local Wildlife Site
MoRPh	Modular River Physical
NCA	National Character Area
NPPG	National Planning Practice Guidance
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NSIP	Nationally Significant Infrastructure Project
oCEMP	Outline Construction Environmental Management Plan
oLEMP	outline Landscape and Ecology Management Plan
PV	Photovoltaic
RCA	River Condition Assessment
SBM	Statutory Biodiversity Metric
SYMCA	South Yorkshire Mayoral Combined Authority
TCPA	The Town & Country Planning Act 1990
UKHab	UK Habitat Classification
W1	Whitestone 1
W2	Whitestone 2
W3	Whitestone 3

Units

Units	Meaning
ha	Hectares
km	Kilometres
kV	Kilovolt
m	Metres
MW	Megawatt

6.4 Biodiversity Net Gain Report

Introduction

6.4.1 This Report supports **ES Volume 2, Chapter 6: Biodiversity and Nature Conservation [EN0110020/APP/6.6]** of the Environmental Statement (ES) for the proposed Whitestone Solar Farm (the Proposed Development).

6.4.2 It describes the legal and policy context for Biodiversity Net Gain (BNG) relevant to the Proposed Development, the BNG assessment methodology, and the Proposed Development's strategy to achieve at least 10% BNG.

6.4.3 The report sets out how the Chartered Institute of Ecology and Environmental Management's (CIEEM) BNG Principles have been applied to the Proposed Development.

Order Limits

6.4.4 The extent of the Order Limits is described in **ES Volume 1, Chapter 3: The Site and Surrounding Area [EN0110020/APP/6.3]** and shown in **ES Volume 3, Figure 3.1: Order Limits [EN0110020/APP/6.19]**. The Proposed Development is described in **ES Volume 1, Chapter 5: The Proposed Development [EN0110020/APP/6.5]** and shown spatially on the **Works Plans [EN0110020/APP/2.3]**.

The Proposed Development

6.4.5 The Proposed Development involves the construction, operation and maintenance, and decommissioning of more than 100MW of solar photovoltaic (PV) array, Battery Energy Storage System (BESS), onsite substations and supporting infrastructure, and grid connection infrastructure. The grid connection infrastructure would connect the Proposed Development to the National Grid at the new National Grid substation Brinsworth (Long Lane 400kV Substation), located east of Long Lane, Rotherham. National Grid has applied to Rotherham Metropolitan Borough Council for the development of this new substation which is intended by National Grid to be operational in time for the Proposed Development to connect in 2029. This substation is therefore not included in the Proposed Development and is subject to a separate planning application taken forward by National Grid.

6.4.6 As the Proposed Development would have a generating capacity in excess of 100MW, it is considered to be a Nationally Significant Infrastructure Project (NSIP) under the Planning Act 2008.

6.4.7 The Proposed Development would be located within the Order Limits. The Order Limits encompass the total area of the Proposed Development comprising the Site and Cable Corridors. The Site is specifically the land that is planned to be used for solar PV array and associated infrastructure, BESS, substation, landscaping and habitat enhancement. The Site is split into Whitestone 1 (W1), Whitestone 2 (W2), and Whitestone 3 (W3).

6.4.8 Highway Works are sections of the highway network that will contain localised improvements, such as improvements to road edge where it is deteriorated, or temporary highway and traffic works required to safely accommodate the

Abnormal Indivisible Load (AIL) deliveries. These areas will support the movement of construction vehicles on narrower sections of the local highway network within parts of the construction vehicle routes to the Site (as described in **ES Volume 2, Chapter 13: Traffic and Transport [EN0110020/APP/6.13]**).

Legislation, Policy, and Guidance

6.4.9 At the time of writing there was no current legislative requirement for the Proposed Development, as a NSIP, to achieve a 10% BNG. However, the BNG requirement will be implemented for NSIPs from 2 November 2026[1]. Even in advance of this, the Applicant is committed to delivering at least 10% BNG on-site (i.e. within the Order Limits, requiring no off-site biodiversity gains outside the Order Limits).

6.4.10 For development applications sought under the Town and Country Planning Act (TCPA), the delivery of BNG is mandatory and set guidance is published. In the absence of specific BNG guidance for NSIPs, this assessment has been informed by guidance and established best practice for TCPA applications.

6.4.11 BNG is also referenced within, national planning and energy policy, including the National Planning Policy Framework (NPPF)[2] and the National Policy Statements Overarching National Policy Statement for Energy (EN-1)[3] and National Policy Statement for Renewable Energy Infrastructure (EN-3)[4].

6.4.12 Further detail regarding legislation, planning policy and guidance considered relevant to this BNG assessment is presented in **Annex 6.4E, BNG Legislation, Planning Policy and Guidance**.

Basis of the Assessment

6.4.13 This Report is supported by the following documents submitted as part of the Application:

- **Works Plans [EN0110020/APP/2.3];**
- **Outline Landscape and Ecology Management Plan [EN0110020/APP/5.13];**
- **ES Volume 2, Chapter 6: Biodiversity and Nature Conservation [EN0110020/APP/6.6];**
- **ES Volume 2, Chapter 10: Water Resources and Flood Risk [EN0110020/APP/6.10];**
- **ES Volume 3, Figure 5.1: Illustrative Masterplan [EN0110020/APP/6.19];**
- **ES Volume 3, Appendix 6.2: UK Habitat Baseline Report [EN0110020/APP/6.20];**
- **ES Volume 3, Appendix 6.4.1: River Condition Assessment [EN0110020/APP/6.20];**
- **ES Volume 3, Appendix 10.3: Water Framework Directive Assessment [EN0110020/APP/6.20]; and**
- **Outline Design Parameters [EN0110020/APP/7.3]**.

6.4.14 A list of **Outline Design Parameters [EN0110020/APP/7.3]** has been developed to represent the maximum spatial extent for each component of the Proposed

Development. The maximum extent of each component has determined the parameters for the technical assessments in this ES.

6.4.15 This assessment considers the habitats within the Order Limits, hereafter referred to as the 'BNG Study Area'.

6.4.16 Habitat loss, enhancement and creation have been informed by the **ES Volume 3, Figure 5.1: Illustrative Masterplan [EN0110020/APP/6.19]** and the **outline Landscape and Ecology Management Plan (oLEMP) [EN0110020/APP/5.13].**

6.4.17 This Report focuses on habitats alone. **ES Volume 2, Chapter 6: Biodiversity and Nature Conservation [EN0110020/APP/.66]** provides further consideration of the Proposed Development's impacts on fauna and connectivity with surrounding habitats and networks of nature conservation value.

Assessment Methodology

Overview

6.4.18 This BNG assessment has been prepared in accordance with the methodology set out in the Statutory Biodiversity Metric (SBM) User Guide[5].

Evidence of Technical Competence

6.4.19 The SBM User Guide states that SBM assessment should be completed by a competent person. The BNG British Standard BS8683:2021[6] defines a competent person as a "*person who can demonstrate they have acquired through training, qualifications or experience, or a combination of these, the knowledge and skills enabling that person to perform a specified task*".

6.4.20 The BNG assessment has been prepared by an ERM ecologist who is an Associate member of CIEEM, has over ten years' experience in ecological consultancy, and has undertaken training in BNG processes. The ecologist has extensive experience in the preparation and review of BNG assessments and in the application of the Statutory Biodiversity Metric for a range of development types.

Good Practice Principles for Biodiversity Net Gain

6.4.21 CIEEM sets out a series of good practice principles for BNG[7]. A description of how the Proposed Development aligns with these principles is presented in **Annex 6.4A, Good Practice Principles**.

Field Survey

6.4.22 The baseline pre-construction Biodiversity Units (BUs) for the Site (W1, W2 and W3) were informed by UK Habitat Classification (UKHab) survey and habitat condition assessments undertaken by ERM between 19 June and 2 October 2024, and 2 June and 5 June 2025.

6.4.23 Habitat field surveys undertaken of the Site were based on the methods described in Version 2 of the UK Habitat Classification User Manual (2023)[8]. Condition assessments completed using the SBM condition assessment sheets[9].

6.4.24 Habitat field surveys were undertaken along accessible sections of the Cable Corridors between 15 and 19 December 2025.

6.4.25 Areas that could not be surveyed were assessed through a desk-based study used to classify habitats across the remainder of the Cable Corridors to identify and categorise habitats in accordance with the most recent version of UKHab. This approach provided a broad overview of the remaining potential habitat types within the unsurveyed sections of the Cable Corridors, informed by recent aerial imagery, satellite data, and publicly accessible habitat and land-cover datasets. Further detailed information on the desk based UKHab assessment of the Cable Corridors is found in **ES Volume 2, Chapter 6, Biodiversity and Nature Conservation [EN0110020/APP/6.6]** and **ES Volume 3, Appendix 6.2: UK Habitat Survey Report [EN0110020/APP/6.20].**

6.4.26 The areas of habitats were calculated in hectares (ha), to three decimal places. The length of linear features (hedgerows and aquatic linear features) was measured in kilometres (km), to three decimal places.

6.4.27 Not all of the habitats listed in the SBM are directly comparable with UKHab classification. As a result, professional judgement was used to best match habitat types within the BNG Study Area to those available within the SBM, following the approach set out in the relevant guidance documents. Habitat conversions between UKHab and their assigned categories in the SBM alongside condition, distinctiveness and habitat area are presented in **Annex 6.4B: Baseline Habitat Data Summary**.

River Condition Assessment

6.4.28 To support the BNG assessment, River Condition Assessment (RCA) surveys were undertaken using the Modular River Physical (MoRPh) survey methodology between May 2025 and December 2025 (full details provided in **ES Volume 3, Appendix 6.4.1: River Condition Assessment Report [EN0110020/APP/6.20]**). As set out in the SBM User Guide, the full length of a watercourse must be accounted for in the SBM. The SBM User Guide also notes that for other watercourses (including canals), RCA is required where such features are present and where an RCA is necessary, the guidance requires that:

- A minimum of one survey point is undertaken for each watercourse section;
- At least 20% of the total length of the watercourse is surveyed; and
- Survey points are located at known interventions where possible.

6.4.29 The MoRPh survey meets the requirements noted above within the SBM User Guide as it characterises short sections (referred to as sub-reaches) of each watercourse that are representative of the overall length of the watercourse within the Proposed Development.

6.4.30 The surveyed sub reaches represent only a proportion of the total watercourse length; however, the SBM User Guide indicates that the full length of each watercourse is to be accounted for within the Metric. As there is no explicit guidance on how to reconcile these approaches, a precautionary method has been adopted for this assessment. The SBM has therefore been populated using the condition information derived from the surveyed sub-reaches, with an additional entry for each watercourse included to account for the unsurveyed lengths. The condition of unsurveyed sections has been assigned on a precautionary basis using the characteristics recorded within the surveyed sub-reaches. Where variation in condition or levels of encroachment was identified along a watercourse, a precautionary worst-case assumption has been applied to unsurveyed stretches.

Trading Rules

6.4.31 Trading rules are based on habitat distinctiveness and set requirements for habitat creation and enhancements to compensate for specific habitat losses.

6.4.32 Habitat distinctiveness is a measure based on the type of habitat and its distinguishing features and is assigned automatically in the SBM. As well as achieving 10% BNG it is a requirement of the SBM for trading rules to be satisfied. The trading rules, outlined in the SBM User Guide, are shown in **Table 6.4.1**.

6.4.33 The trading rules require that habitat loss for habitats of medium or higher distinctiveness must be mitigated by the creation of habitats within the same overall habitat group of equivalent distinctiveness or a habitat of higher distinctiveness. This approach follows a “like for like” or “like for better “principle. As a key guiding principle in BNG design, habitats have been collated into distinctiveness groupings in paragraphs 6.4.80 to 6.4.93.

Table 6.4.1 Table Trading Rules to Compensate for Losses

Baseline Habitat Distinctiveness	Area	Hedgerow	Watercourse
Very High	Priority should be given to replacing losses with area habitat units of the same habitat type	Losses must be replaced with hedgerow units of the same habitat type	Priority should be given to replacing losses with watercourse units of the same habitat type
High	Losses must be replaced with area habitat units of the same habitat type	Losses must be replaced with hedgerow units of the same habitat type or of a higher band	Losses must be replaced with watercourse units of the same habitat type
Medium	Losses must be replaced by area habitat units of either medium band habitats within the same broad habitat type or, any habitat from a higher band from any broad habitat type	Losses must be replaced with hedgerow units of the same or of a higher band	Losses must be replaced with watercourse units of the same habitat type
Low	Losses must be replaced with area habitat units of the same or higher band	Losses must be replaced with hedgerow units of the same or of a higher band	Losses must be replaced with watercourse units of a higher band
Very Low	N/A	Losses must be replaced with hedgerow units of the same or of a higher band	N/A

Strategic Significance

6.4.34 As part of the BNG assessment, strategic significance must be assigned to each habitat within the SBM. Strategic significance is defined as "*the local significance of the habitat based on its location and the habitat type*"[10].

6.4.35 The strategic significance categories are:

- High: Formally identified in local strategy;
- Medium: Location ecologically desirable but not in local strategy; and
- Low: Area / compensation not in local strategy / no local strategy.

6.4.36 The Strategic Significance of habitats will ultimately be defined within the Local Nature Recovery Strategy (LNRS).

6.4.37 LNRSs are spatial strategies introduced in the Environment Act 2021 which will set priorities for nature recovery and suggest specific actions in areas where they can have the most impact. These strategies will be shaped by local knowledge, especially from landowners and managers, and must include a local habitat map and written statement of biodiversity priorities[11]. The UK Government has identified 48 strategy areas across England.

6.4.38 The City of Doncaster Council and Rotherham Metropolitan Borough Council are both 'Supporting Authorities' to the South Yorkshire Mayoral Combined Authority (SYMCA). The SYMCA is responsible for preparing the South Yorkshire LNRS which "*will identify, protect, enhance, and create habitats across South Yorkshire, supporting environmental recovery whilst tackling species and habitat loss*" [12].

6.4.39 The South Yorkshire LNRS has been drafted and subject to public consultation however at the time of writing was yet to be published[13]. The SBM User Guide states that where a LNRS has not yet been published, the relevant planning authority should specify alternative documents for assigning strategic significance whilst an LNRS is put in place and includes examples of alternative documents whish should be used.

6.4.40 The City of Doncaster Council notes that "*Doncaster's Local Biodiversity Action Plan (2007) outlines Doncaster's wildlife conservation priorities and gives guidance on how we can protect and enhance biodiversity*" and that "*It details Doncaster's priority habitats (those most threatened and requiring conservation action) and will inform, and eventually be replaced, by the new Local Nature Recovery Strategy*"[14].

6.4.41 The Rotherham Metropolitan Borough Council website[15] notes that "*South Yorkshire natural capital and biodiversity mapping report contributes detailed evidence of the benefits that natural ecosystems provide and the opportunities to enhance them. This evidence base will be used to inform South Yorkshire's upcoming Local Nature Recovery Strategy*."

6.4.42 For this assessment the Doncaster Local Biodiversity Action Plan (LBAP) (2007)[16] and habitat action plans[17] together with the Rotherham LBAP and habitat action plans [18],Planning Policy Guidance: Assigning Strategic Significance[19] and the South Yorkshire natural capital and biodiversity mapping report[20] were reviewed to inform habitats of High strategic significance. Habitats situated within Local Wildlife Sites (LWS) were assigned High Strategic Significance.

6.4.43 Strategic significance has been applied to each habitat as shown in **Table 6.4.2** Strategic Significance**.**

Table 6.4.2 Strategic Significance

Broad Habitat	Habitat Type	Justification
High strategic significance		
All habitats within an LWS	N/A	N/A
Cropland	Arable field margins cultivated annually	High- Rotherham Biodiversity Action Plan (BAP) Habitat Group and Doncaster Habitat Action Plan Habitat Group
	Arable field margins tussocky	High- Rotherham BAP Habitat Group and Doncaster Habitat Action Plan Habitat Group
Grassland	Other neutral grassland	High - Doncaster Habitat Action Plan Habitat Group and noted as a South Yorkshire priority habitat in the South Yorkshire natural capital and biodiversity mapping report)
Hedgerow	Native hedgerow	High - Rotherham BAP Habitat Group
	Native hedgerow - associated with bank or ditch	High - Rotherham BAP Habitat Group
	Native hedgerow with trees	High - Rotherham BAP Habitat Group
	Native hedgerow with trees - associated with bank or ditch	High - Rotherham BAP Habitat Group
	Species-rich native hedgerow	High - Rotherham BAP Habitat Group and Doncaster Habitat Action Plan Habitat Group
	Species-rich native hedgerow - associated with bank or ditch	High - Rotherham BAP Habitat Group and Doncaster Habitat Action Plan Habitat Group
	Species-rich native hedgerow with trees	High - Rotherham BAP Habitat Group and Doncaster Habitat Action Plan Habitat Group
	Species-rich native hedgerow with trees - associated with bank or ditch	High - Rotherham BAP Habitat Group and Doncaster Habitat Action Plan Habitat Group
Heathland and shrub	Blackthorn scrub	High - Rotherham BAP Habitat Group and Doncaster Habitat Action Plan Habitat Group

Broad Habitat	Habitat Type	Justification
	Bramble scrub	High - Rotherham BAP Habitat Group and Doncaster Habitat Action Plan Habitat Group
	Hawthorn scrub	High - Rotherham BAP Habitat Group and Doncaster Habitat Action Plan Habitat Group
	Mixed scrub	High - Rotherham BAP Habitat Group and Doncaster Habitat Action Plan Habitat Group
	Willow scrub	High - Rotherham BAP Habitat Group and Doncaster Habitat Action Plan Habitat Group
Individual trees	Rural tree	High - Rotherham BAP Habitat Group and Doncaster Habitat Action Plan Habitat Group)
Lakes	Ponds (non-priority habitat)	High - Rotherham BAP Habitat Group and Doncaster Habitat Action Plan Habitat Group)
Watercourses	Ditches	High (Formally identified in local strategy) - Rotherham BAP Habitat Group and Doncaster Habitat Action Plan Habitat Group
	Other rivers and streams	High (Formally identified in local strategy) - Rotherham BAP Habitat Group and Doncaster Habitat Action Plan Habitat Group
Woodland and forest	Lowland mixed deciduous woodland	High - Rotherham BAP Habitat Group and Woodland noted as a 'key asset' within the South Yorkshire natural capital and biodiversity
	Other woodland; broadleaved	High - Rotherham BAP Habitat Group and Woodland noted as a 'key asset' within the South Yorkshire natural capital and biodiversity
	Other woodland; mixed	High - Rotherham BAP Habitat Group and Woodland noted as a 'key asset' within the South Yorkshire natural capital and biodiversity
	Wet woodland	High - Rotherham BAP Habitat Group; Doncaster Habitat Action Plan Habitat Group and Woodland noted as a 'key asset' within the South Yorkshire natural capital and biodiversity
Low Strategic Significance		

Broad Habitat	Habitat Type	Justification
Cropland	Cereal crops	Low - Area / compensation not in local strategy
	Non-cereal crops	Low - Area / compensation not in local strategy
	Temporary grass and clover leys	Low - Area / compensation not in local strategy
	Winter stubble	Low - Area / compensation not in local strategy
Grassland	Modified grassland	Low - Area / compensation not in local strategy
Hedgerow	Non-native and ornamental hedgerow	Low - Area / compensation not in local strategy
Sparsely vegetated land	Ruderal/Ephemeral	Low - Area / compensation not in local strategy
Urban	Artificial unvegetated, unsealed surface	Low - Area / compensation not in local strategy
	Built linear features	Low - Area / compensation not in local strategy
	Developed land; sealed surface	Low - Area / compensation not in local strategy
Watercourse	Canals	Low - Area / compensation not in local strategy

Assumptions and Limitations

6.4.44 To support this assessment the following assumptions were applied.

6.4.45 Permanent loss of habitat is assumed for habitats under the footprint of the following elements in the Illustrative Masterplan (as shown in **ES Volume 3, Figure 5.1: Illustrative Masterplan [EN0110020/APP/6.19]**):

- Access tracks (PV road);
- Primary substation; and
- BESS.

6.4.46 Temporary primary and secondary construction compounds would result in a temporary habitat loss with habitat creation occurring following construction as per **ES Volume 3, Figure 5.1: Illustrative Masterplan [EN0110020/APP/6.20]**.

6.4.47 New permissive paths are not assumed to result in habitat loss and have been excluded from the SBM.

6.4.48 All hedgerow crossings by Site access roads require vegetation clearance and are considered to have 6m of vegetation loss to facilitate access associated with each crossing. In some places, the crossings will only require gate widening and trimming back, however 6m presents the worst-case scenario.

6.4.49 Access points and highway visibility splays will lead to habitat losses of woodland, hedgerow and trees where allowance for sufficient working width and manoeuvring for vehicle movements are required.

6.4.50 Areas of vegetation to be managed at 0.25 m during construction are considered to lead to habitat losses of woodland, hedgerow and trees.

6.4.51 As outlined in **ES Volume 1, Chapter 5: The Proposed Development [EN0110020/APP/6.5]**, the construction phase is expected to span approximately 24 to 36 months. While the exact timeline would depend on various factors, including the submission and determination of the development consent, the current plan is to commence construction in 2027 and conclude in 2029.It should be noted that the construction works would be phased, so it is unlikely for one area to be undergoing construction for a continuous 24 to 36 months. However, as such phases are not confirmed, a worst-case 36-month (3-year) delay in habitat creation within the Site was assumed for this assessment.

6.4.52 The habitats within the Cable Corridors have been assessed as 'Retained' in the SBM as the baseline habitat type and condition are assumed to be restored within two years of the initial impact (following the approach to retained habitats detailed in the SBM User Guide[21]). This is based on the assumption that impacts to sensitive habitats (such as woodland and hedgerow) would be avoided, except where watercourse crossings are required, as discussed below.

6.4.53 Construction of new watercourse crossings and the upgrade of existing crossings would require works within and on the banks of watercourses including disturbance of the bed and banks. A total of 11 access track crossings of ordinary watercourses would be required across the Site. This includes seven new crossings proposed as part of the Proposed Development and four existing crossings that are to be upgraded. It is assumed that existing track crossing points over watercourses would be upgraded and strengthened on a like for like basis, with the same footprint and type of crossing, to include reinstatement of culverts. This has assumed no change in condition of existing watercourses in the SBM. Of the seven proposed new access track watercourse within the Site, two are proposed to be bridge crossings with five culverts. For this assessment it is assumed that bridge crossings would not impact the condition of the watercourse, however increased encroachment would occur. It is assumed that culverts would result in a 6m loss of watercourse and bankside vegetation.

6.4.54 A total of 13 cable crossings of ordinary watercourses would be required along the Cable Corridors. This includes up to 11 trenchless crossings and up to 6 of the crossings could be open-cut trench crossings if conditions at time of construction are suitable. Trenchless crossings are assumed to result in no loss of habitat or condition of watercourses as they would result in no direct in channel works. Although temporary launch and reception pits are required, which involve localised ground disturbance and construction plant activity, the launch and reception pits would be set back 10m from watercourses. As such, no habitat loss for the watercourse is assumed and any impact due to launch and reception pits are assumed to be temporary, with habitats reinstated within two years and considered retained within the SBM.

6.4.55 Open-cut trench cable installation have the potential to generate short term adverse impacts on surface water quality, water quantity, and geomorphology, however as the watercourse is anticipated to return to its original condition within two years, this has been assessed as retained within the SBM.

6.4.56 In addition, within the Site, a number of other cable crossings of small watercourses are proposed. The exact crossing locations will be determined post consent during detailed design, and it has been assumed these could entail a combination of both trenchless and trenched crossing techniques. As such crossing detail was not available at the time of writing they have not been included in this assessment.

6.4.57 Where access was not available to conduct field surveys or design iterations introduced land not previously covered by surveys, the assessment was informed by publicly available sources, including aerial imagery, satellite data, and existing habitat and landcover datasets (for further detail see the limitations sections of **ES Volume 2, Chapter 6: Biodiversity and Nature Conservation [EN0110020/APP/6.6]** and **ES Volume 3, Appendix 6.2: UK Habitat Baseline Report [EN0110020/APP/6.20])**. This has enabled sufficient information to be available to determine an assessment based on worst case parameters. Where condition criteria were not recorded on site, this assessment applies the highest condition score observed for that habitat type elsewhere within the surveyed area, on a precautionary basis. This assumption has been applied to enable completion of the BNG calculations and represents a precautionary, worst-case approach to avoid underestimating habitat condition. However, it is acknowledged that this assumption may inflate the resulting condition scores where criteria were in fact not met on site.

Baseline Habitats

6.4.58 Full descriptions of the baseline habitats recorded within the Site and Cable Corridors are presented in **ES Volume 3, Appendix 6.2: UK Habitat Baseline Report [EN0110020/APP/6.20]**. Details regarding the condition and extent of each habitat are presented in **Annex 6.4B: Baseline Habitat Data Summary**. A baseline UKHab habitat map is presented **ES Volume 3, Figures 6.2.1** and **6.2.2: UK Habitat Classification [EN0110020/APP/6.20]**. The baseline habitat classifications as per the SBM habitat types are shown in **ES Volume 3, Figure 6.4.1: BNG Baseline Habitat [EN0110020/APP/6.19].**

6.4.59 A summary of the baseline habitats within the BNG Study Area are presented below, grouped in the distinctiveness categories. Details of the baseline habitats are presented in **Annex 6.4B: Baseline Habitat Data Summary**, **Table 6.4.5** to **Table 6.4.7**, including habitat distinctiveness, SBM broad habitat, SBM habitat type, UKHab categories, area, condition, trading rule requirement, baseline units, area retained, units retained, area lost and units lost.

6.4.60 One veteran tree was recorded within the Site and broadleaved woodland mapped as Ancient & Semi-Natural Woodland which are considered to be irreplaceable habitat.

6.4.61 Very high distinctiveness habitats recorded include:

- Species-rich native hedgerow with trees - associated with bank or ditch.

6.4.62 High distinctiveness habitats recorded include:

- Woodland and forest - Lowland mixed deciduous woodland;
- Woodland and forest - Native pine woodlands;
- Woodland and forest - Wet woodland;
- Native hedgerow with trees - associated with bank or ditch;

- Species-rich native hedgerow - associated with bank or ditch;
- Species-rich native hedgerow with trees; and
- Other rivers and streams.

6.4.63 Medium distinctiveness habitats recorded include:

- Cropland - Arable field margins cultivated annually;
- Cropland - Arable field margins tussocky;
- Grassland - Other neutral grassland;
- Heathland and shrub - Blackthorn scrub;
- Heathland and shrub - Bramble scrub;
- Heathland and shrub - Hawthorn scrub;
- Heathland and shrub - Mixed scrub;
- Heathland and shrub - Willow scrub;
- Individual trees - Rural tree;
- Lakes - Ponds (non-priority habitat);
- Woodland and forest - Other woodland; broadleaved;
- Woodland and forest - Other woodland; mixed;
- Native hedgerow - associated with bank or ditch;
- Native hedgerow with trees;
- Species-rich native hedgerow;
- Canals; and
- Ditches.

6.4.64 Low distinctiveness habitats recorded in the BNG Study Area include:

- Cropland - Cereal crops;
- Cropland - Non-cereal crops;
- Cropland - Temporary grass and clover leys;
- Cropland - Winter stubble;
- Grassland - Modified grassland;
- Sparsely vegetated land - Ruderal/Ephemeral; and
- Native hedgerow.

6.4.65 Very low distinctiveness habitats recorded in the BNG Study Area include:

- Urban - Artificial unvegetated, unsealed surface;
- Urban - Built linear features;
- Urban - Developed land; sealed surface; and
- Non-native and ornamental hedgerow.

Habitat Loss, Retention, and Indicative BNG Plan

Permanent habitat loss

6.4.66 The only habitat of Very High distinctiveness which is subject to permanent habitat loss is 'species-rich native hedgerow with trees - associated with bank or ditch'. To meet the Trading Rules for this habitat type like for like habitat is required.

6.4.67 The habitats of High distinctiveness which are subject to permanent habitat loss include 'wet woodland', 'native hedgerow with trees - associated with bank or ditch', 'species-rich native hedgerow - associated with bank or ditch', 'species-rich native hedgerow with trees', and 'other rivers and streams'. To meet the Trading Rules for the 'wet woodland' and 'other rivers and streams' the same habitat is required and for hedgerows like for like or better habitat is required.

6.4.68 The habitats of Medium distinctiveness which are subject to permanent habitat loss include 'arable field margins cultivated annually', 'arable field margins tussocky', 'other neutral grassland', 'blackthorn scrub', 'bramble scrub', 'mixed scrub', 'other woodland; broadleaved', 'native hedgerow - associated with bank or ditch', 'native hedgerow with trees' and 'species-rich native hedgerow'. To meet the Trading Rules for these habitats the same broad habitat or a higher distinctiveness habitat is required.

6.4.69 Habitats within the BNG Study Area of Low distinctiveness which are subject to permanent habitat loss are 'cereal crops', 'non-cereal crops', 'temporary grass and clover leys', 'winter stubble', 'modified grassland' and 'native hedgerow'. To meet the Trading Rules for these habitats the same distinctiveness or better habitat is required.

6.4.70 Habitats within the BNG Study Area of Very low distinctiveness affected by permanent habitat loss include 'built linear features' and 'developed land; sealed surface'. Compensation is not required for these habitats under the Trading Rules.

Temporary habitat loss

6.4.71 Temporary primary and secondary construction compounds would result in a temporary habitat loss for Low distinctiveness habitats including 'cereal crops', 'non-cereal crops', 'temporary grass and clover leys', 'winter stubble' and 'modified grassland' habitats. To meet the Trading Rules for these habitats the same distinctiveness or better habitat is required.

Retained habitats

6.4.72 Habitats not subject to permanent or temporary loss, as well as those habitats that can be reinstated to their original habitat and condition within two years and therefore considered to be retained within the SBM include the following area habitats (as shown in **ES Volume 3, Figure 6.4.2: BNG Retained Habitat [EN0110020/APP/6.19]**):

- Cropland - Temporary grass and clover leys;
- Heathland and shrub - Blackthorn scrub;
- Heathland and shrub - Bramble scrub;
- Heathland and shrub - Hawthorn scrub;

- Heathland and shrub - Mixed scrub;
- Heathland and shrub - Willow scrub;
- Lakes - Ponds (non-priority habitat);
- Sparsely vegetated land - Ruderal/Ephemeral;
- Species-rich native hedgerow - associated with bank or ditch;
- Species-rich native hedgerow with trees;
- Species-rich native hedgerow with trees - associated with bank or ditch;
- Urban - Artificial unvegetated, unsealed surface;
- Urban - Built linear features;
- Urban - Developed land; sealed surface;
- Woodland and forest - Lowland mixed deciduous woodland;
- Woodland and forest - Native pine woodlands;
- Woodland and forest - Other woodland; broadleaved;
- Woodland and forest - Other woodland; mixed;
- Woodland and forest - Wet woodland;
- Individual trees - Rural tree;
- Native hedgerow - associated with bank or ditch;
- Native hedgerow with trees - associated with bank or ditch;
- Non-native and ornamental hedgerow;
- Canals;
- Ditches; and
- Other rivers and streams.

Indicative BNG Plan

6.4.73 **ES Volume 3, Figure 5.1: Illustrative Masterplan [EN0110020/APP/6.19]** shows the vegetation that is likely to be planted as part of the Proposed Development as part of the wider mitigation and enhancement strategy.

6.4.74 The following elements of **ES Volume 3, Figure 5.1: Illustrative Masterplan [EN0110020/APP/6.19]** informed the post development habitat creation and enhancement within the SBM:

- Areas to be Retained and Enhanced for Biodiversity;
- Proposed tussock and grassland seed mix;
- Proposed species-rich grassland seed mix;
- Proposed hedgerow;
- Proposed hedgerow with trees; and
- Individual trees.

6.4.75 Details of the proposed habitats to be created and enhanced, along with their management are provided in the **oLEMP [EN0110020/APP/5.13]**.

6.4.76 For the purposes of completing the SBM, habitats within the Illustrative Masterplan were converted into SBM classifications.

6.4.77 Proposed habitat creation and enhancement measures are presented in **Annex 6.4C: Proposed Habitat Data Summary,** shown in **ES Volume 3, Figure 6.4.3: BNG Post-Development Habitat [EN0110020/APP/6.19]** and discussed below. These tables detail the habitat distinctiveness, area, condition, strategic significance and predicted biodiversity units.

6.4.78 The predicted target conditions of habitats to be created have been selected on a precautionary basis ensuring the BNG scenario is both realistic and achievable.

6.4.79 It should be noted that any habitat creation and enhancement proposed will be managed and monitored in line with current guidelines, over a period of 30 years; as outlined in the **oLEMP [EN0110020/APP/5.13]** submitted with the Application.

Areas to be Retained and Enhanced for Biodiversity

6.4.80 An area to the south of the proposed W1 Satellite Substation is noted within **ES Volume 3, Figure 5.1: Illustrative Masterplan [EN0110020/APP/6.19]** as 'Areas to be Retained and Enhanced for Biodiversity'. Habitats within this area include the following; 'cereal crops', 'other neutral grassland', 'mixed scrub'; 'ponds (non-priority habitat)' and 'developed land; sealed surface'.

6.4.81 Within this area it is proposed that the cropland will be reverted to 'other neutral grassland' in Good condition, the 'ponds (non-priority habitat)' and area of 'mixed scrub' are retained in Moderate condition with 'other neutral grassland' and 'mixed scrub' in Poor condition enhanced to Good and Moderate condition respectively.

Landscape Mitigation Tussock and Grassland

6.4.82 This assessment was informed by a review of relevant published evidence, including the CIEEM In Practice article[22] and guidance from Solar Energy UK[23], to determine the type of grassland most commonly recorded beneath solar panels. Based on this information, grassland mapped as 'Proposed tussock and grassland seed mix' within **ES Volume 3, Figure 5.1: Illustrative Masterplan [EN0110020/APP/6.19]** under solar PV infrastructure (Works Area 1 as shown in **Works Plan [EN0110020/APP/2.3]**) have been assumed to be modified grassland of Poor condition. The same habitat type has also been assumed to occur between the solar panels in other areas mapped as 'Proposed tussock and grassland seed mix' on a precautionary basis. However, it is acknowledged that, subject to detailed design, management and maintenance regimes, grassland of higher species richness and condition could be achieved in at least some of these areas.

6.4.83 It is assumed that any existing ponds and woodland habitat mapped under the 'Proposed tussock and grassland seed mix' polygons on the Illustrative masterplan would be retained.

6.4.84 The majority of habitat types within areas identified in **ES Volume 3, Figure 5.1: Illustrative Masterplan [EN0110020/APP/6.19]** for 'Proposed tussock and grassland seed mix' creation that fall outside the developable area have also been assumed to be lost to facilitate the Proposed Development.

6.4.85 It is assumed that any existing 'developed land' habitat under the footprint of proposed grassland planting within **ES Volume 3, Figure 5.1: Illustrative Masterplan [EN0110020/APP/6.19]** would be retained and not seeded.

Landscape Mitigation Species Rich Grassland

6.4.86 In the **oLEMP [EN0110020/APP/5.13]** it is noted that agricultural field margins and species-rich grassland will be established and encompass varying seed mixes to account for supporting varied grassland habitats including agricultural field margins, riparian zones and wildflower meadows. The **oLEMP [EN0110020/APP/5.13]** also notes that scrapes and wetland habitat will be reintroduced within parts of the Brampton Common LWS.

6.4.87 It is assumed that 'other neutral grassland' of Good condition would be created within the polygons mapped as 'Proposed species-rich grassland seed mix' (which include the elements described in paragraph 6.4.87) within **ES Volume 3, Figure 5.1: Illustrative Masterplan [EN0110020/APP/6.19]** This has been applied to areas where the baseline habitat is cropland and modified grassland with existing areas of 'other neutral grassland' enhanced to Good condition. Other habitats mapped under the footprint of **ES Volume 3, Figure 5.1: Illustrative Masterplan [EN0110020/APP/6.19]** for 'Proposed species-rich grassland seed mix' creation have been assumed to be retained.

Agricultural field margins

6.4.88 The **oLEMP [EN0110020/APP/5.13]** notes that agricultural field margins are to be established following prescriptions from Defra along one boundary in each of the fields supporting solar PV and subsequently maintained and resown as required. The exact location and proportion of seed types will be tailored to conditions on site and as such have not been mapped within the **ES Volume 3, Figure 5.1: Illustrative Masterplan [EN0110020/APP/6.19].** In the absence of confirmed mapped areas of such habitat, the SBM has assumed the creation of 6ha 'Arable field margins cultivated annually' in areas currently mapped as 'Proposed species-rich grassland seed mix' within **ES Volume 3, Figure 5.1: Illustrative Masterplan [EN0110020/APP/6.19]**.

Native tree belts and scrub

6.4.89 The **oLEMP [EN0110020/APP/5.13]** identifies that native tree belts will be established to provide screening in sensitive areas and that **s**cattered scrub will be planted to extend scrub and grassland. While the exact locations for such woodland and scrub planting have not yet been confirmed, at least 1ha of each habitat type will be created within the Site. In the absence of confirmed mapped areas of such habitat, the SBM has conservatively assumed the creation of 1ha of 'Other woodland; broadleaved' in Poor condition and the creation of 1ha of 'Mixed scrub' in Moderate condition in areas currently mapped as 'Proposed species-rich grassland seed mix' within **ES Volume 3, Figure 5.1: Illustrative Masterplan [EN0110020/APP/6.19].**

6.4.90 A small, permanent loss of wet woodland (up to approximately 0.03 ha) will occur at Anston Brook to facilitate the installation of an access track crossing. While the design avoids impacts where possible through micro-siting and the retention of a minimum 15 m buffer from wet woodland elsewhere, some localised loss and disturbance is unavoidable. To compensate for the identified loss and temporary construction effects, enhancement measures are being explored to strengthen the extent and connectivity of retained wet woodland along Anston Brook. These measures could include targeted planting of appropriate native wet woodland species within adjacent areas, alongside the management and removal of

invasive non-native species. However, delivery of such measures will require further feasibility assessment, including site-based surveys and consultation with relevant land managers and stakeholders, who are understood to be undertaking enhancement works within this area. In addition, areas identified as having potential for wet woodland creation through emerging Local Nature Recovery Strategy (LNRS) discussions within the Order Limits are also being considered. This will be progressed through further design development and will be subject to ongoing scrutiny through the examination process. As the mitigation strategy will be developed as the design progresses, no creation or enhancement of wet woodland has been assumed in the SBM at this stage and as such, this loss is resulting in the SBM failing to meet Trading Rules.

Hedgerows

6.4.91 Species-rich native hedgerow and species-rich native hedgerow with trees in Good condition are assumed in areas mapped as 'Proposed hedgerow' and 'Proposed hedgerow with trees' in **ES Volume 3, Figure 5.1: Illustrative Masterplan [EN0110020/APP/6.19]**.

6.4.92 It is assumed that all existing hedgerows within the Site will be enhanced to Good condition through the gapping up and amended management practices to follow best practice[24] and the management outlined in Section 7.3 of the **oLEMP [EN0110020/APP/5.13]**. It is assumed that all proposed hedgerows will be managed to achieve Good condition. No hedgerow enhancements have been assumed within the Cable Corridors.

Individual trees

6.4.93 Although **ES Volume 3, Figure 5.1: Illustrative Masterplan [EN0110020/APP/6.19]** proposes tree planting, the majority of this planting is located within hedgerows and would therefore be assigned to the UKHab classification of hedgerow with trees, rather than considered to be individual rural trees for the purposes of the Statutory Biodiversity Metric. On this basis, no individual trees have been recorded within the post-development section of the SBM.

Proposed Watercourse Enhancements

6.4.94 Within the **oLEMP [EN0110020/APP/5.13]** it is noted that ditches will be managed to maintain existing habitat for fish and other aquatic and semi-aquatic fauna where relevant, with new or upgraded crossings designed to maintain connectivity. Riparian zones will be managed for biodiversity and will be supplemented with a species rich seed mix. the exact location and proportion of seed types will be tailored to conditions on Site and to the needs of the Site's biodiversity. Grassland strips approximately 5m wide (measured from bank top) will be established as described above for other species-rich grasslands.

6.4.95 Riparian seed mixes, including dense tussocky grasses, common reed, and reed canary grass, will be used along draining ditches and banks, incorporating a 2m strip either side of the bank top riparian zones will be managed for biodiversity and will be supplemented with a species rich seed mix. Such measures to enhance the riparian buffer have been considered within the SBM to reduce riparian encroachment to minor encroachment.

6.4.96 The reduction in riparian encroachment associated with the conversion of arable land to grassland is anticipated to deliver biodiversity enhancements to both 'other rivers and streams' and 'ditch' habitats. Opportunities to enhance 'Other rivers and streams' habitat through the reduction of riparian encroachment will be explored where feasible. Within the SBM for this assessment, it has been assumed that a reduction in riparian encroachment can be achieved at the following watercourses: Anston Brook; Broadbridge Dyke; Cramfit Brook and Kearsley Brook. Further opportunities across additional watercourses will be identified as the design progresses and will be detailed within the Landscape and Ecological Management Plan (LEMP).

Biodiversity Units and SBM Results

6.4.97 Headline results produced by the statutory biodiversity metric can be found in **Annex 6.4D: SBM Headline Results** The headline results are summarised in **Table 6.4.3.**

6.4.98 Overall, following the implementation of the Indicative BNG Plan, this assessment predicts the Proposed Development to deliver a 43% BNG in habitat units (referred to as BU), and a 44% BNG in Hedgerow Units (HU). Not all of this BNG will be allocated to the Proposed Development. The allocated figures, all at least 10%, are set out in Requirement 7 of the draft DCO.

6.4.99 This assessment assumes that the proposed tussocky grassland mapped on the Illustrative Masterplan under solar PV infrastructure (Works Area 1 as shown in **Works Plan [EN0110020/APP/2.3**]) will result in the creation of modified grassland in Poor condition. This assumption limits the predicted BNG for this solar farm as in practice, the grassland between panels may achieve a higher condition and/or increased species richness, either of which would deliver a greater number of biodiversity units and a higher overall BNG outcome. However, a precautionary worst-case approach has been adopted to provide a minimum estimate that is considered achievable.

6.4.100 Watercourse BNG is indicative at this stage but at least a 10% BNG is anticipated through reduction in bankside encroachment and the reversion of arable land to species rich grassland.

6.4.101 The Proposed Development will produce a LEMP prior to construction that will be generally in accordance with the **oLEMP [EN0110020/APP/5.13]** as secured through a requirement in Schedule 2 of the **Draft DCO [EN0110020/APP/3.1]**. The habitat creation and enhancement actions confirmed within the LEMP will not deviate significantly from the **oLEMP [EN0110020/APP/5.13]** and this BNG assessment and will deliver at least a 10% gain on-site for the Proposed Development.

6.4.102 The Trading rules were not satisfied in one case at the time of writing due to the loss of the High distinctiveness Woodland and forest - Wet woodland habitat by Anston Brook due to the proposed watercourse crossing. Initial desk-based review indicates potential opportunities for wet woodland expansion in the vicinity of Anston Brook; however, this would require further feasibility assessment, including site-based survey and consultation with the relevant land manager(s), who are understood to be undertaking enhancement works within this area. In addition, areas with potential for wet woodland creation identified during draft Local Nature Recovery Strategy (LNRS) discussions within the Order Limits are also being considered. On this basis, the assessment reports that the trading rules for wet woodland are not currently met, but sets out a clear mitigation

strategy to address this shortfall. The Applicant's expectation is this will be achievable, subject to further design development and scrutiny through the examination process.

Table 6.4.3: Statutory Biodiversity Metric Calculation Headline Results

Biodiversity Units	On-site Baseline	On-site Post-Intervention*	On-site Net Change (Unit)	On-site Net Change (Percentage, %)
Habitat units	3,809.61	5,429.34	1,619.73	42.52
Hedgerow units	711.98	1,028.62	316.64	44.47
Watercourse units	153.18	168.66	15.49	10.11

6.4A Annex 6.4A: Good Practice Principles

6.4.103 CIEEM sets out a series of good practice principles for BNG[25]. **Table 6.4.4** describes alignment with these principles through the development process at the time of writing

Table 6.4.4 Application Alignment with Good Practice Principles

Principle	In Practice	Compliance
1. Apply the mitigation hierarchy	Do everything possible to first avoid and then minimise impacts on biodiversity. Only as a last resort, and in agreement with external decision-makers where possible, compensate for losses that cannot be avoided. If compensating for losses within the development footprint is not possible or does not generate the most benefits for nature conservation, then offset biodiversity losses by gains elsewhere.	The mitigation hierarchy was applied to the Proposed Development through the avoidance, where possible, of habitat loss (discussed in **ES Volume 1, Chapter 4: Alternatives and Design Evolution [EN0110020/APP/6.4]**). Habitat protection buffers will also be applied as noted in the **Outline Design Parameters [EN0110020/APP/7.3];** and **ES Volume 2, Chapter 6: Biodiversity and Nature Conservation [EN0110020/APP/6.6].** The majority of the habitats within the Site will be subject to cropland reversion to grassland with the majority of habitats within the Cable Corridor retained or returned to their baseline habitat following works.
2. Avoid losing biodiversity that cannot be offset by gains elsewhere	Avoid impacts on irreplaceable biodiversity – these impacts cannot be offset to achieve No Net Loss or Net Gain.	One veteran tree was recorded within the Site. This tree will be retained and with a proposed buffer distance covering the Root Protection Area (RPA) in line with the **Outline Design Parameters [EN0110020/APP/7.3**], and the implementation of mitigation measures in Section 6.6 of **ES Volume 2, Chapter 6: Biodiversity and Nature Conservation [EN0110020/APP/6.6].** and identified within the **outline**

Principle	In Practice	Compliance
		Construction Environmental Management Plan (oCEMP) [EN0110020/APP/5.9].
3. Be inclusive and equitable	Engage stakeholders early, and involve them in designing, implementing, monitoring, and evaluating the approach to Net Gain. Achieve Net Gain in partnership with stakeholders where possible and share the benefits fairly among stakeholders.	Stakeholder engagement was undertaken as noted in **ES Volume 2, Chapter 6: Biodiversity and Nature Conservation [EN0110020/APP/6.6].**
4. Address Risk	Mitigate difficulty, uncertainty and other risks to achieving Net Gain. Apply well-accepted ways to add contingency when calculating biodiversity losses and gains in order to account for any remaining risks, as well as to compensate for the time between the losses occurring and the gains being fully realised.	The latest Natural England SBM was used in the assessment. An **oLEMP [EN0110020/APP/5.13]** is submitted with the Application to set out regular monitoring and adaptive management measures.
5. Make a measurable net gain contribution.	Achieve a measurable, overall gain for biodiversity and the services ecosystems provide while directly contributing towards nature conservation priorities.	This Report sets out the Proposed Development's strategy to deliver a measurable gain which contributes to identified local priority habitats and the species they support.
6. Achieve the best outcomes for biodiversity	Achieve the best outcomes for biodiversity by using robust, credible evidence and local knowledge to make clearly-justified choices when:	This Report sets out the Proposed Development's strategy to deliver a measurable gain which contributes to identified local priority habitats. In particular the proposed design has incorporated enhancements to native hedgerows and grassland which are of high strategic significance.
7. Be additional	•	This Report sets out the Proposed Development's strategy to deliver a measurable gain which contributes to identified local

Principle	In Practice	Compliance
		priority habitats and the species they support.
8. Create a Net Gain legacy	•	This Report sets out the Proposed Development's strategy to deliver a measurable gain which contributes to identified local priority habitats and the species they support. An **oLEMP [EN0110020/APP/5.13]** is submitted with the Application to set out regular monitoring and adaptive management measures.
9. Optimise sustainability	•	The Applicant is committed to achieving at least a 10% net gain in biodiversity as evidenced through the development of the Illustrative Masterplan. The biodiversity enhancements proposed aim to optimise the wider environmental benefits through hedgerow creation and enhancements and the reversion of cropland to grassland.
10. Be transparent	•	The BNG report and other information supporting it have been made available and engagement with the relevant stakeholders was undertaken.

6.4B Annex 6.4B: Baseline Habitat Data Summary

6.4.104 This annex presents a summary of the baseline habitats within the BNG Study Area and includes habitat distinctiveness, SBM broad habitat, SBM habitat type, UKHab categories, area, condition, trading rule requirement, baseline units, area retained, units retained, area lost and units lost. It should be noted that these tables do not include detail on post intervention enhancements or habitat creation.

Table 6.4.5 Baseline Area Habitat Data Summary

Broad Habitat	Habitat Type	UKHab categories	Condition	Required Action to Meet Trading Rules	Area (hectares)	Total habitat units	Area retained	Baseline units retained	Area enhanced	Baseline units enhanced	Area habitat lost	Units lost
Irreplaceable habitat (Medium distinctiveness)												
Individual trees	Rural tree	n/a point data secondary code	Good	Bespoke compensation likely to be required	0.037	0	0.037	0	0	0	0	0
Woodland and forest	Other woodland; broadleaved	w1g - Other broadleaved woodland	Moderate	Bespoke compensation likely to be required	0.186	0	0.186	0	0	0	0	0
High distinctiveness												
Woodland and forest	Lowland mixed deciduous woodland	w1f - Lowland mixed deciduous woodland	Good	Same habitat required =	0.215	4.451	0.215	4.451	0	0	0	0
Woodland and forest	Native pine woodlands	w2a - Native pine woodlands	Poor	Same habitat required =	0.086	0.593	0.086	0.593	0	0	0	0
Woodland and forest	Wet woodland	w1d - Wet woodland	Moderate	Same habitat required =	3.287	45.361	3.255	44.919	0	0	0.032	0.442
Medium distinctiveness												
Cropland	Arable field margins cultivated annually	c - Cropland c1 - Arable and horticulture c1a - Arable field margins	Condition Assessment N/A	Same broad habitat or a higher distinctiveness habitat required (≥)	20.774	95.560	18.915	87.009	0	0	1.859	8.551
Cropland	Arable field margins tussocky	c1a5 - Arable field margins tussocky	Condition Assessment N/A	Same broad habitat or a higher distinctiveness habitat required (≥)	2.589	11.909	0.003	0.014	0	0	2.586	11.896
Grassland	Other neutral grassland	f2d - Aquatic marginal vegetation g - Grassland g3c - Other neutral grassland g3c7 - *Deschampsia* neutral grassland	Moderate	Same broad habitat or a higher distinctiveness habitat required (≥)	31.018	285.366	14.371	132.213	9.409	86.563	7.238	66.590
Grassland	Other neutral grassland	f2d - Aquatic marginal vegetation g - Grassland g3c - Other neutral grassland g3c7 - *Deschampsia* neutral grassland	Poor	Same broad habitat or a higher distinctiveness habitat required (≥)	14.506	66.728	2.837	13.050	7.682	35.337	3.987	18.340
Heathland and shrub	Blackthorn scrub	h3a - Blackthorn scrub	Moderate	Same broad habitat or a higher distinctiveness habitat required (≥)	0.039	0.359	0.032	0.294	0	0	0.007	0.064
Heathland and shrub	Blackthorn scrub	h3a - Blackthorn scrub	Poor	Same broad habitat or a higher distinctiveness habitat required (≥)	0.007	0.032	0	0	0	0	0.007	0.032
Heathland and shrub	Bramble scrub	h3d - Bramble scrub	Condition Assessment N/A	Same broad habitat or a higher distinctiveness habitat required (≥)	0.615	2.829	0.577	2.654	0	0	0.038	0.175

Broad Habitat	Habitat Type	UKHab categories	Condition	Required Action to Meet Trading Rules	Area (hectares)	Total habitat units	Area retained	Baseline units retained	Area enhanced	Baseline units enhanced	Area habitat lost	Units lost
Heathland and shrub	Hawthorn scrub	h3f - Hawthorn scrub	Moderate	Same broad habitat or a higher distinctiveness habitat required (≥)	0.034	0.313	0.034	0.313	0	0	0	0
Heathland and shrub	Hawthorn scrub	h3f - Hawthorn scrub	Poor	Same broad habitat or a higher distinctiveness habitat required (≥)	0.307	1.412	0.307	1.412	0	0	0	0
Heathland and shrub	Mixed scrub	h3h - Mixed scrub	Moderate	Same broad habitat or a higher distinctiveness habitat required (≥)	5.219	48.015	5.017	46.156	0	0	0.202	1.858
Heathland and shrub	Mixed scrub	h3h - Mixed scrub	Poor	Same broad habitat or a higher distinctiveness habitat required (≥)	2.119	9.747	1.994	9.172	0.050	0.230	0.075	0.345
Heathland and shrub	Willow scrub	h3j - Willow scrub	Moderate	Same broad habitat or a higher distinctiveness habitat required (≥)	0.486	4.471	0.486	4.471	0	0	0	0
Heathland and shrub	Willow scrub	h3j - Willow scrub	Poor	Same broad habitat or a higher distinctiveness habitat required (≥)	0.318	1.463	0.318	1.463	0	0	0	0
Individual trees	Rural tree	n/a point data secondary code	Good	Same broad habitat or a higher distinctiveness habitat required (≥)	1.686	23.261	1.686	23.261	0	0	0	0
Lakes	Ponds (non-priority habitat)	r1g - Other standing water	Moderate	Same broad habitat or a higher distinctiveness habitat required (≥)	0.224	2.061	0.224	2.061	0	0	0	0
Lakes	Ponds (non-priority habitat)	r1g - Other standing water	Poor	Same broad habitat or a higher distinctiveness habitat required (≥)	0.600	2.760	0.600	2.760	0	0	0	0
Woodland and forest	Other woodland; broadleaved	w1g - Other broadleaved woodland	Good	Same broad habitat or a higher distinctiveness habitat required (≥)	6.953	95.951	6.785	93.633	0	0	0.168	2.318
Woodland and forest	Other woodland; broadleaved	w1g - Other broadleaved woodland	Moderate	Same broad habitat or a higher distinctiveness habitat required (≥)	11.254	103.537	11.213	103.160	0	0	0.040	0.377
Woodland and forest	Other woodland; broadleaved	w1g - Other broadleaved woodland	Poor	Same broad habitat or a higher distinctiveness habitat required (≥)	0.781	3.593	0.781	3.593	0	0	0	0
Woodland and forest	Other woodland; mixed	w1 - Broadleaved and mixed woodland w1h - other woodland, mixed w1h - Other woodland; mixed w1h5 - Other woodland; mixed; mainly broadleaved	Good	Same broad habitat or a higher distinctiveness habitat required (≥)	0.885	12.213	0.884	12.199	0	0	0.001	0.014

Broad Habitat	Habitat Type	UKHab categories	Condition	Required Action to Meet Trading Rules	Area (hectares)	Total habitat units	Area retained	Baseline units retained	Area enhanced	Baseline units enhanced	Area habitat lost	Units lost
Woodland and forest	Other woodland; mixed	w1 - Broadleaved and mixed woodland w1h - other woodland, mixed w1h - Other woodland; mixed w1h5 - Other woodland; mixed; mainly broadleaved	Moderate	Same broad habitat or a higher distinctiveness habitat required (≥)	0.619	5.695	0.619	5.695	0	0	0	0
Woodland and forest	Other woodland; mixed	w1 - Broadleaved and mixed woodland w1h - other woodland, mixed w1h - Other woodland; mixed w1h5 - Other woodland; mixed; mainly broadleaved	Poor	Same broad habitat or a higher distinctiveness habitat required (≥)	0.475	2.185	0.475	2.185	0	0	0	0
Low distinctiveness												
Cropland	Cereal crops	c1c - Cereal crops c1c7 - Other cereal crops c1c8 - Arable fields pollen and nectar	Condition Assessment N/A	Same distinctiveness or better habitat required ≥	734.402	1472.961	142.067	286.405	0	0	592.335	1185.556
Cropland	Non-cereal crops	c1d - Non-cereal crops c1d8 - Other non-cereal crops	Condition Assessment N/A	Same distinctiveness or better habitat required ≥	250.900	505.895	36.531	74.350	0	0	214.369	431.545
Cropland	Temporary grass and clover leys	c1b - Temporary grass and clover leys c1b5 - Rye-grass and clover ley c1b6 - Legume-rich ley	Condition Assessment N/A	Same distinctiveness or better habitat required ≥	111.113	224.448	39.583	81.388	0	0	71.530	143.060
Cropland	Winter stubble	c1c5 - Winter stubble	Condition Assessment N/A	Same distinctiveness or better habitat required ≥	50.397	100.794	3.209	6.418	0	0	47.188	94.376
Grassland	Modified grassland	g4 - Modified grassland	Good	Same distinctiveness or better habitat required ≥	60.054	375.218	21.092	126.640	10.820	68.635	28.142	179.943
Grassland	Modified grassland	g4 - Modified grassland	Moderate	Same distinctiveness or better habitat required ≥	6.348	25.392	0.006	0.024	1.180	4.720	5.162	20.648
Grassland	Modified grassland	g4 - Modified grassland	Poor	Same distinctiveness or better habitat required ≥	131.587	273.145	32.935	65.948	34.778	73.691	63.874	133.507
Sparsely vegetated land	Ruderal/Ephemeral	s - Sparsely vegetated land u1f - Sparsely vegetated urban land	Good	Same distinctiveness or better habitat required ≥	0.482	2.892	0.482	2.892	0	0	0	0
Very low distinctiveness												
Urban	Artificial unvegetated, unsealed surface	u1c - Artificial unvegetated, unsealed surface	N/A - Other	Compensation Not Required	0.258	0	0.258	0	0	0	0	0

Broad Habitat	Habitat Type	UKHab categories	Condition	Required Action to Meet Trading Rules	Area (hectares)	Total habitat units	Area retained	Baseline units retained	Area enhanced	Baseline units enhanced	Area habitat lost	Units lost
Urban	Built linear features	u1e - Built linear features	N/A - Other	Compensation Not Required	9.798	0	9.749	0	0	0	0.049	0
Urban	Developed land; sealed surface	u1 - built-up areas and gardens u1b - Developed land; sealed surface u1b5 - buildings u1b6 - Other developed land	N/A - Other	Compensation Not Required	28.594	0	26.640	0	0	0	1.954	0

Table 6.4.6 Baseline Hedgerow Data Summary

Habitat type	Condition	Required Action to Meet Trading Rules	Length (km)	Ecological baseline	Length retained	Units retained	Length enhanced	Units enhanced	Length lost	Units lost
Very high distinctiveness										
Species-rich native hedgerow with trees - associated with bank or ditch	Good	Like for like	2.065	56.994	2.065	56.994	0	0	0	0
Species-rich native hedgerow with trees - associated with bank or ditch	Moderate	Like for like	0.462	8.501	0	0	0.456	8.390	0.006	0.110
High distinctiveness										
Native hedgerow with trees - associated with bank or ditch	Good	Like for like or better	1.384	28.649	1.277	26.434	0	0	0.107	2.215
Native hedgerow with trees - associated with bank or ditch	Moderate	Like for like or better	2.519	34.762	0	0	2.499	34.486	0.020	0.276
Native hedgerow with trees - associated with bank or ditch	Poor	Like for like or better	0.747	5.154	0	0	0.718	4.954	0.029	0.200
Species-rich native hedgerow - associated with bank or ditch	Good	Like for like or better	0.779	16.125	0.779	16.125	0	0	0	0
Species-rich native hedgerow - associated with bank or ditch	Poor	Like for like or better	0.187	1.290	0	0	0.181	1.249	0.006	0.041
Species-rich native hedgerow with trees	Good	Like for like or better	1.866	38.626	1.834	37.964	0	0	0.032	0.662
Species-rich native hedgerow with trees	Moderate	Like for like or better	2.480	34.224	0	0	2.322	32.044	0.158	2.180
Species-rich native hedgerow with trees	Poor	Like for like or better	0.396	2.732	0	0	0.396	2.732	0	0
Medium distinctiveness										
Native hedgerow - associated with bank or ditch	Good	Same distinctiveness band or better	1.887	26.041	1.852	25.558	0	0	0.035	0.483
Native hedgerow - associated with bank or ditch	Moderate	Same distinctiveness band or better	2.178	20.038	0	0	2.149	19.771	0.029	0.267
Native hedgerow - associated with bank or ditch	Poor	Same distinctiveness band or better	0.166	0.764	0	0	0.166	0.764	0	0
Native hedgerow with trees	Good	Same distinctiveness band or better	8.330	114.954	7.959	109.834	0	0	0.371	5.120

Habitat type	Condition	Required Action to Meet Trading Rules	Length (km)	Ecological baseline	Length retained	Units retained	Length enhanced	Units enhanced	Length lost	Units lost
Native hedgerow with trees	Moderate	Same distinctiveness band or better	5.305	48.806	0	0	5.206	47.895	0.099	0.911
Native hedgerow with trees	Poor	Same distinctiveness band or better	0.670	3.082	0	0	0.642	2.953	0.028	0.129
Species-rich native hedgerow	Good	Same distinctiveness band or better	1.468	20.258	1.399	19.223	0	0	0.075	1.035
Species-rich native hedgerow	Moderate	Same distinctiveness band or better	2.114	20.658	0	0	1.913	17.600	0.201	1.849
Species-rich native hedgerow	Poor	Same distinctiveness band or better	0.685	3.151	0	0	0.676	3.110	0.009	0.041
Low distinctiveness										
Native hedgerow	Good	Same distinctiveness band or better	27.484	189.640	25.390	175.191	0	0	2.094	14.449
Native hedgerow	Moderate	Same distinctiveness band or better	7.306	33.608	0	0	6.900	31.740	0.406	1.868
Native hedgerow	Poor	Same distinctiveness band or better	2.219	5.104	0	0	2.173	4.998	0.046	0.106
Very Low distinctiveness										
Non-native and ornamental hedgerow	Poor	Same distinctiveness band or better	0.031	0.031	0.031	0.031	0	0	0	0

Table 6.4.7 Baseline Watercourse Summary Data

Watercourse type	Condition	Required Action to Meet Trading Rules	Length (km)	Total watercourse units	Length retained	Units retained	Length enhanced	Units enhanced	Length Lost	Units Lost
High distinctiveness										
Other rivers and streams	Fairly good	Same habitat required =	5.24	59.318	2.846	28.226	2.388	31.052	0.006	0.039
Other rivers and streams	Fairly poor	Same habitat required =	0.169	0.783	0.036	0.149	0.133	0.634	0	0
Other rivers and streams	Moderate	Same habitat required =	6.487	67.257	4.76	52.373	1.715	14.75	0.012	0.134
Medium distinctiveness										
Canals	Moderate	Same habitat required =	0.186	0.558	0.186	0.558	0	0	0	0
Ditches	Moderate	Same habitat required =	6.347	21.897	0	0	6.274	21.65	0.073	0.252
Ditches	Poor	Same habitat required =	1.951	3.365	0	0	1.938	3.34	0.013	0.022

6.4C Annex 6.4C: Proposed Habitat Data Summary

This annex presents a summary of the proposed habitats on-site and includes habitat distinctiveness, area, condition and predicted biodiversity units.

Table 6.4.8 Proposed Area Habitat Summary Data

Target Habitat Type	Feature Refs as shown in ES Volume 3, Figure 5.1: Illustrative Masterplan [EN0110020/APP/6.19]	Area (ha)	Creation / Enhancement	Targeted Condition	Delay in Habitat Creation	Proposed BU Delivered	Comments
Medium distinctiveness							
Arable field margins pollen and nectar	n/a	6	Creation	Condition Assessment N/A	3	23.934	Agricultural field margins will be established along one boundary of each solar PV field in line with Defra guidance and maintained thereafter. In the absence of mapped baseline areas, the SBM assumes the creation of 6ha of 'Arable field margins cultivated annually' within areas currently identified as 'Proposed species-rich grassland seed mix'.
Mixed scrub	n/a	1	Creation	Moderate	3	6.920	While the exact locations for scrub planting has not yet been confirmed, at least 1ha will be created within the Site. In the absence of mapped baseline areas, the SBM assumes the creation of 'Mixed scrub' in moderate condition within areas currently identified as 'Proposed species-rich grassland seed mix'.
Other neutral grassland	Proposed species-rich grassland seed mix	238.851	Creation	Good	3	2074.250	Species Rich Grassland creation as per the Illustrative Masterplan
Other woodland; broadleaved	n/a	1	Creation	Poor	3	3.459	While the exact locations for woodland has not yet been confirmed, at least 1ha will be created within the Site. In the absence of mapped baseline areas, the SBM assumes the creation of 1ha of 'Other woodland; broadleaved' in poor condition within areas currently identified as 'Proposed species-rich grassland seed mix'.
Mixed scrub	Areas retained and enhanced for biodiversity	0.05	Enhancement	Moderate	3	0.40	Enhancement of scrub to Moderate condition
Other neutral grassland	Landscape Mitigation - Species Rich Grassland	63.869	Enhancement	Good	3	602.080	Species Rich Grassland enhancement of existing modified grassland and other neutral grassland.
Low distinctiveness							
Modified grassland	Proposed tussock and grassland seed mix	740.780	Creation	Poor	3	1477.500	Tussocky Grassland as per the Illustrative Masterplan

Table 6.4.9 Proposed Hedgerow Summary Data

Target Habitat Type	Feature Refs as Shown in ES Volume 3, Figure 5.1: Illustrative Masterplan [EN0110020/APP/6.19]	Length (km)	Creation / Enhancement	Targeted Condition	Delay in Habitat Creation	Proposed BU Delivered	Comments
Very high distinctiveness							
Species-rich native hedgerow with trees - associated with bank or ditch	n/a	0.462	Enhancement	Moderate - Good	3	11.660	Enhancement of condition through gapping up of hedgerows and amended management practices
High distinctiveness							
Species-rich native hedgerow with trees	Proposed hedgerows with trees	6.270	Creation	Good	3	57.200	Creation of new hedgerows within the Site and creation of new hedgerows within Brampton Common LWS and Site.

Native hedgerow with trees - associated with bank or ditch	n/a	2.519	Enhancement	Moderate - Good	3	47.923	Enhancement of condition through gapping up of hedgerows and amended management practices
Native hedgerow with trees - associated with bank or ditch	n/a	0.747	Enhancement	Poor - Good	3	11.190	Enhancement of condition through gapping up of hedgerows and amended management practices
Species-rich native hedgerow - associated with bank or ditch	n/a	0.187	Enhancement	Poor - Good	3	3.127	Enhancement of condition through gapping up of hedgerows and amended management practices
Species-rich native hedgerow with trees	n/a	2.48	Enhancement	Moderate - Good	3	44.529	Enhancement of condition through gapping up of hedgerows and amended management practices
Species-rich native hedgerow with trees	n/a	0.396	Enhancement	Poor - Good	3	6.171	Enhancement of condition through gapping up of hedgerows and amended management practices
Medium distinctiveness							
Species-rich native hedgerow	Proposed hedgerows	23.000	Creation	Good	3	186.000	Creation of new hedgerows with trees within the Site.
Native hedgerow - associated with bank or ditch	n/a	2.178	Enhancement	Moderate - Good	3	28.043	Enhancement of condition through gapping up of hedgerows and amended management practices
Native hedgerow - associated with bank or ditch	n/a	0.166	Enhancement	Poor - Good	3	1.912	Enhancement of condition through gapping up of hedgerows and amended management practices
Native hedgerow with trees	n/a	5.305	Enhancement	Moderate - Good	3	6.557	Enhancement of condition through gapping up of hedgerows and amended management practices
Native hedgerow with trees	n/a	0.670	Enhancement	Poor - Good	3	6.670	Enhancement of condition through gapping up of hedgerows and amended management practices
Species-rich native hedgerow	n/a	2.114	Enhancement	Moderate - Good	3	24.964	Enhancement of condition through gapping up of hedgerows and amended management practices
Species-rich native hedgerow	n/a	0.685	Enhancement	Poor - Good	3	7.786	Enhancement of condition through gapping up of hedgerows and amended management practices
Low distinctiveness							
Native hedgerow	n/a	7.306	Enhancement	Moderate - Good	3	45.020	Enhancement of condition through gapping up of hedgerows and amended management practices
Native hedgerow	n/a	2.219	Enhancement	Poor - Good	3	12.515	Enhancement of condition through gapping up of hedgerows and amended management practices

Table 6.4.10 Proposed Watercourse Summary Data

Target Habitat Type	Feature Refs as shown in ES Volume 3, Figure 5.1: Illustrative Masterplan [EN0110020/APP/6.19]	Area (km)	Creation / Enhancement	Targeted Condition	Delay in Habitat Creation/Enhancement	Proposed BU Delivered	Comments
High distinctiveness							
Other rivers and streams	n/a	2.388	Enhancement	Fairly Good - Fairly Good	3	38.363	Enhancement of watercourses through reduced encroachment and enhancement of the riparian buffer
Other rivers and streams	n/a	0.133	Enhancement	Fairly Poor - Fairly Poor	3	0.696	Enhancement of watercourses through reduced encroachment and enhancement of the riparian buffer
Other rivers and streams	n/a	1.721	Enhancement	Moderate - Moderate	3	16.647	Enhancement of watercourses through reduced encroachment and enhancement of the riparian buffer
Medium distinctiveness							
Ditches	n/a	6.345	Enhancement	Moderate - Moderate	3	27.675	Enhancement of watercourses through reduced encroachment and enhancement of the riparian buffer
Ditches	n/a	1.951	Enhancement	Poor - Poor	3	4.263	Enhancement of watercourses through reduced encroachment and enhancement of the riparian buffer

6.4D Annex 6.4D: SBM Headline Results

Whitestone Solar Farm

Headline Results

Return to results menu

Scroll down for final results ⚠

On-site baseline	*Area habitat units*	3809.61	
	Hedgerow units	711.98	
	Watercourse units	153.18	
On-site post-intervention (Including habitat retention, creation & enhancement)	*Area habitat units*	5429.34	
	Hedgerow units	1028.62	
	Watercourse units	168.66	
On-site net change (units & percentage)	*Area habitat units*	1619.73	42.52%
	Hedgerow units	316.64	44.47%
	Watercourse units	15.49	10.11%
Off-site baseline	*Area habitat units*	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site post-intervention (Including habitat retention, creation & enhancement)	*Area habitat units*	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site net change (units & percentage)	*Area habitat units*	0.00	0.00%
	Hedgerow units	0.00	0.00%
	Watercourse units	0.00	0.00%
Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Area habitat units*	1619.73	
	Hedgerow units	316.64	
	Watercourse units	15.49	
Spatial risk multiplier (SRM) deductions	*Area habitat units*	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	

FINAL RESULTS

Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Area habitat units*	1619.73	
	Hedgerow units	316.64	
	Watercourse units	15.49	
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Area habitat units*	42.52%	
	Hedgerow units	44.47%	
	Watercourse units	10.11%	
Trading rules satisfied?	No - Check Trading Summaries ▲		

Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
Area habitat units	10.00%	3809.61	4190.57	0.00	No additional area habitat units required to meet target ✓
Hedgerow units	10.00%	711.98	783.18	0.00	No additional hedgerow units required to meet target ✓
Watercourse units	10.00%	153.18	168.50	0.00	No additional watercourse units required to meet target ✓

Input errors/rule breaks present in metric ▲

6.4E Annex 6.4E: Legislation, Policy and Guidance

6.4.105 This assessment considers key legislation, planning policy and guidance that are relevant to the Proposed Development and BNG. For further detail regarding Environmental Impact Assessment (EIA) methodology and the legal and regulatory framework of the Proposed Development, please refer to **ES Volume 1, Chapter 2: EIA Methodology [EN0110020/APP/6.2].**

6.4.106 The following sections discuss the current Legislation, Policy and Guidance relating to BNG.

6.4.107 BNG is not currently a legal requirement for NSIPs however BNG is noted as a requirement under national and local planning policy and the Applicant is committed to following current best practice and upcoming legislation to deliver at least 10% BNG onsite.

Legislation

6.4.108 BNG is a legal requirement for planning applications in England under Schedule 7A of the TCPA 1990[26] (as inserted by Schedule 14 of the Environment Act 2021) as of 12 February 2024 for major developments, small sites from 2 April 2024.

6.4.109 The BNG requirement is proposed to be introduced for NSIPs from November 2026 and underwent consultation between May and July 2025[27].

6.4.110 Schedule 15: Biodiversity Gain in Nationally Significant Infrastructure Projects of the Environment Act 2021[28] will apply to a development to which a Development Consent Order (DCO) application relates, currently planned for applications made from 2 November 2026. Schedule 15 notes that the Secretary of State will issue a BNG statement which must include a BNG objective. The statement must specify a minimum 10% biodiversity gain objective (with the option to require more). Once finalised, the BNG statement will guide how BNG is integrated into DCO applications and how decisions are made on BNG for NSIPs. The Secretary of State may not grant an application unless satisfied that the biodiversity gain objective is met.

6.4.111 In the absence of specific guidance for the BNG process relating to NSIPs and DCO applications at the time of writing, this assessment follows current best practice and follows the guidance available for TCPA applications. The following BNG regulations are therefore most relevant to the Proposed Development:

- The Environment Act 2021 (Commencement No. 8 and Transitional Provisions) Regulations 2024[29];
- The Biodiversity Gain Requirements (Exemptions) Regulations 2024[30];
- The Biodiversity Gain (Town and Country Planning) (Modifications and Amendments) (England) Regulations 2024[31]; and
- The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024[32].

6.4.112 Schedule 7A of the Town and Country Planning Act 1990 (inserted by the Environment Act 2021) requires developments to deliver at least a 10% increase

in biodiversity value relative to the pre-development biodiversity value of the onsite habitat (i.e. all habitats within the Site Boundary of the development), irrespective of whether the habitats are impacted by the development.

6.4.113 Habitat enhancements must be maintained for at least 30 years after the development is completed. Such maintenance must be secured through a legal agreement such as a section 106 agreement or conservation covenant. A Habitat Management and Monitoring Plan (HMMP) will be required to support the delivery of the final BNG commitments and set out the responsibilities for creating, enhancing, monitoring and reporting for the 30-year period[33].

6.4.114 Separate arrangements would apply to on-site irreplaceable habitat which requires bespoke compensation.[34]. The list of irreplaceable habitat includes:

- Blanket bog;
- Lowland fens;
- Limestone pavements;
- Coastal sand dunes;
- Ancient woodland;
- Ancient and veteran trees;
- Spartina saltmarsh swards; and
- Mediterranean saltmarsh scrub.

6.4.115 The 10% increase can be achieved through onsite biodiversity gains, registered offsite biodiversity gains or the purchase of statutory biodiversity credits.

6.4.116 In addition to the Mitigation Hierarchy, consideration of the Biodiversity Gain Hierarchy must be evidenced to show the prioritisation of on-site measures. The Biodiversity Gain Hierarchy is summarised in **Plate 6.4.1**Plate 6.4.1 and the guidance[35] states that:

- "*The Biodiversity Gain Hierarchy and its effect for the purpose of the statutory framework for biodiversity net gain is set out in Articles 37A and 37D of the Town and Country Planning (Development Management Procedure) (England) Order 2015. This hierarchy (which does not apply to irreplaceable habitats) sets out a list of priority actions:*
  - *first, in relation to onsite habitats which have a medium, high and very high distinctiveness (a score of four or more according to the statutory biodiversity metric), the avoidance of adverse effects from the development and, if they cannot be avoided, the mitigation of those effects; and*
  - *then, in relation to all onsite habitats which are adversely affected by the development, the adverse effect should be compensated by prioritising in order, where possible, the enhancement of existing onsite habitats, creation of new onsite habitats, allocation of registered offsite gains and finally the purchase of biodiversity credits."*

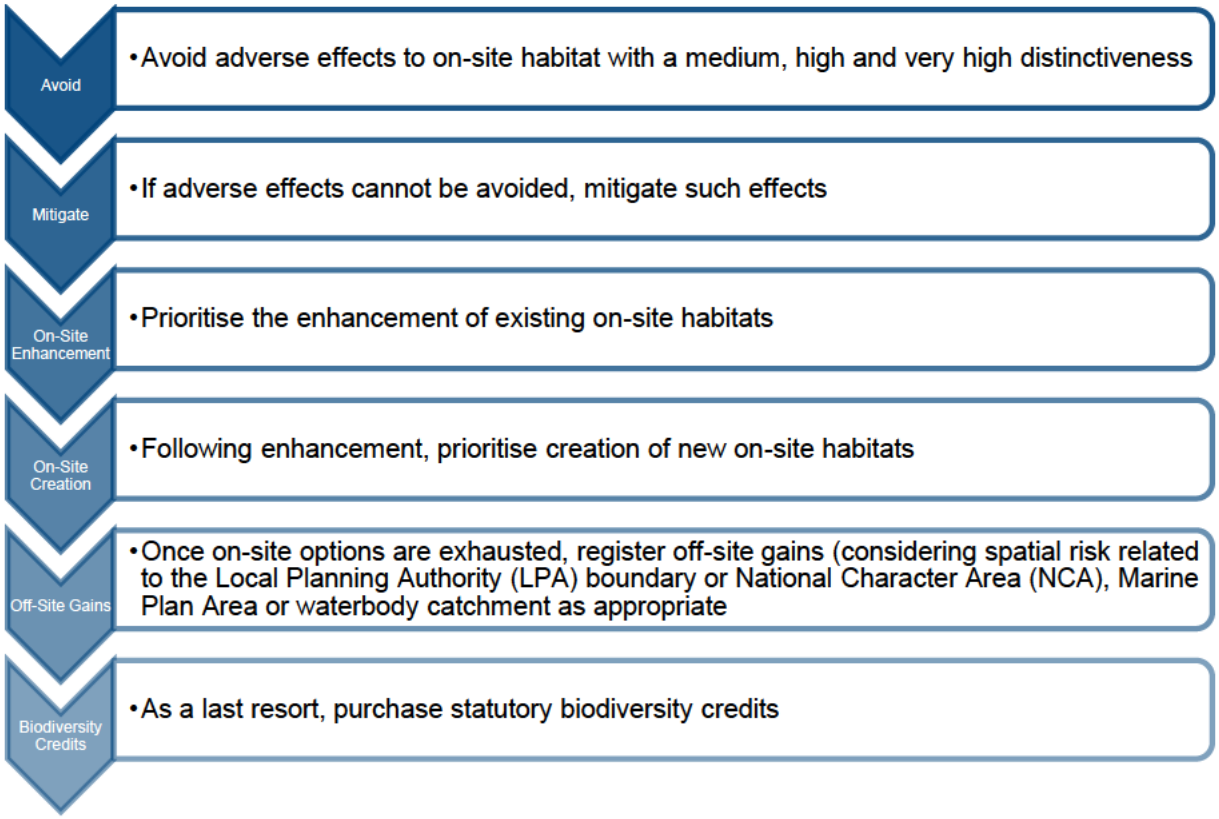

Plate 6.4.1 Steps related to the Biodiversity Gain Hierarchy

National Policy

Overarching National Policy Statement for energy (EN-1) and National Policy Statement for Renewable Energy Infrastructure (EN-3)

6.4.117 The energy National Policy Statements (NPSs), EN-1 – EN-6, outline the government's policy for delivering major energy infrastructure. The NPSs relevant to this assessment are

- the Overarching National Policy Statement for Energy (EN-1)[3]; and
- National Policy Statement for Renewable Energy Infrastructure (EN-3)[4].

6.4.118 Within EN-1, Section 4.6: Environmental and BNG sets out the method for applicant assessment of environmental and BNG and includes the recommendation for applicants to calculate BNG using the latest biodiversity metric, follow the mitigation hierarchy and to include consideration of how developments may best contribute to the achievement of relevant wider strategic outcomes with reference to the LNRS.

6.4.119 EN-1 includes a summary of the Secretary of State decision making process (discussed in Paragraph 5.4.45) relating to DCOs and BNG and notes that "*Any habitat creation or enhancement delivered including linkages with existing habitats for compensation or biodiversity net gain should generally be maintained for a minimum period of 30 years, or for the lifetime of the project, if longer.*"

6.4.120 The importance of BNG is summarised in Paragraph 4.6.2 of EN-1 which states that "*Biodiversity net gain is an essential component of environmental net gain.*

Projects in England should consider and seek to incorporate improvements in natural capital, ecosystem services and the benefits they deliver when planning how to deliver biodiversity net gain". Paragraph 4.6.6 continues to state: "*Energy NSIP proposals, whether onshore or offshore, should seek opportunities to contribute to and enhance the natural environment by providing net gains for biodiversity, and the wider environment where possible*".

6.4.121 EN-3 states in paragraph 2.8.66 that "*Applicants should include details on how avoidance has been achieved, good design principles have been followed and provide proposals for mitigation. If the development is in English and Welsh waters, they should also demonstrate that they have considered how their proposals can contribute towards terrestrial environmental and biodiversity net gain where applicable.".*

6.4.122 EN-3 states in paragraph 2.8.95 that "*Applicants need to consider environmental and biodiversity net gain as set out in Section 4.6 of EN-1 and the Environment Act 2021*" and notes in paragraph 2.10.81 that "*Solar farms have the potential to increase the biodiversity value of a site, especially if the land was previously intensively managed. In some instances, this can result in significant benefits and enhancements beyond biodiversity net gain, which result in wider environmental gains which is encouraged*".

The National Planning Policy Framework (NPPF)

6.4.123 The NPPF[2], last updated in February 2025, sets out the Government's planning policies for England, and how they are expected to be applied.

6.4.124 BNG is encouraged through the NPPF. Paragraph 187 emphasises particularly that *"Planning policies and decisions should contribute to and enhance the natural and local environment by… minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures".*

6.4.125 The National Planning Practice Guidance (NPPG) accompanies the NPPF, providing guidance on the BNG planning process (see Guidance Section below).

Local Plans and Policy

6.4.126 The Proposed Development is situated within two local authorities. W1 largely falls within the City of Doncaster Council local authority with an area to the west of the Site, adjacent to Ravenfield Park, overlapping the Rotherham Metropolitan Borough Council local authority. W2 and W3 fall within the Rotherham Metropolitan Borough Council local authority. Accordingly, both the Local authority's Local Plans and LBAPs have been consulted to inform this assessment.

The City of Doncaster Local Plan

6.4.127 The City of Doncaster Local Plan 2015-2035 adopted in September 2021[36] sets out the policies and proposals to meet Doncaster's requirements for employment, housing and other development. In total, there are 73 policies outlining the strategic objectives in which they aim to achieve their visions as outlined in the City of Doncaster Local Plan.

6.4.128 The City of Doncaster Local Plan includes details and requirements for proposals relating to protecting and enhancing biodiversity. The objectives relating to BNG

are particularly noted in Policy 29: Ecological Networks, Policy 30: Valuing Biodiversity and Geodiversity and Policy 31: Local Wildlife and Geological Sites.

6.4.129 Policy 29 Ecological Networks policy details the following requirements:

- *"Proposals will only be supported which deliver a net gain for biodiversity and protect, create, maintain and enhance the Borough's networks by:*
  - *a) being an appropriate size, scale and type in relation to their location within and impact on the ecological network;*
  - *b) maintain, strengthening bridge gaps in existing habitat networks;*
  - *c) planting native species and creating new, or restoring existing, national and local priority habitats and/or species; and*
  - d) *working with strategic partnerships to deliver conservation projects at a landscape scale where appropriate*."

6.4.130 Policy 30 Valuing Biodiversity and Geodiversity: outlines principles relating to protecting internationally, nationally, and locally important habitats, sites and species. This Policy includes the requirement for proposals to demonstrate a 10% net gain for biodiversity.

6.4.131 Policy 32 Woodlands, Trees and Hedgerows notes that proposals will be supported where it can be "*demonstrated that woodlands, trees and hedgerows have been adequately considered during the design process, so that a significant adverse impact upon ecological interest has been avoided*. *There will be presumption against development that results in the loss or deterioration of ancient woodland and/or veteran trees.*". Proposals will be required to avoid the loss of or deterioration of woodland and deliver sufficient provision of appropriate replacement planting where it is intended to remove trees and hedgerows.

Rotherham Local Plan Core Strategy

6.4.132 The Rotherham Local Plan Core Strategy 2013-2028 was adopted in September 2014 and was prepared to outline the long-term future development plans for Rotherham[37]. The Local Plan sets out 34 policies to achieve sustainable development. Policies particularly relating to BNG include the following:

- Policy CS 20 Biodiversity and Geodiversity sets out the Council's objective to conserve and enhance Rotherham's natural environment. Policy 20 notes that biodiversity resources will be protected, and measures will be taken to enhance ecological resources including habitats, ecological features and protected and priority species and notes that development decisions will incorporate best practice including biodiversity gain; and
- Policy 24 Conserving and Enhancing the Water Environment states that proposed development will be supported where they do not result in the deterioration of water courses and which conserve and enhance the water quality and ecological value of water environment including watercourse corridors.

Guidance

6.4.133 Relevant guidance on conducting BNG assessment includes:

- The National Planning Policy Framework Guidance: Biodiversity Net Gain[38];

- Department for Environment, Food & Rural Affairs (DEFRA) collection of BNG guidance[39]:
  - Statutory biodiversity metric tools and guides
  - Understanding biodiversity net gain
  - Meet biodiversity net gain requirements: steps for developers
  - Make on-site biodiversity gains as a developer
  - Make off-site biodiversity gains as a developer
  - What you can count towards a development's biodiversity net gain
  - Statutory biodiversity credits
  - Statutory biodiversity credit prices
  - Submit a biodiversity gain plan
  - Biodiversity gain plan
  - Biodiversity net gain: exempt developments; and
  - Irreplaceable habitats.
- Chartered Institute of Ecology and Environmental Management (CIEEM), Construction Industry Research and Information Association (CIRIA) & Institute of Sustainability and Environmental Professionals (ISEP) (formerly Institute of Environmental Management and Assessment (IEMA)): Biodiversity Net Gain: Good practice principles for development[40]; and
- CIEEM, CIRIA & IEMA. Biodiversity Net Gain: Good practice principles for development. A practical guide[41].

References

[1] Defra (2026) Consultation outcome - Summary of responses and government responses (Updated 15 April 2026). (Online) Available at: https://www.gov.uk/government/consultations/biodiversity-net-gain-for-nationally-significant-infrastructure-projects/outcome/summary-of-responses-and-government-response#irreplaceable-habitat. Accessed: April 2026.

[2] Ministry of Housing, Communities & Local Government (2025). National Planning Policy Framework. (Online). Available at: https://www.gov.uk/government/publications/national-planning-policy-framework--2. Accessed: April 2026.

[3] Department for Energy Security & Net Zero, 2025 [Online] Overarching National Policy Statement for energy (EN-1). Available at: https://www.gov.uk/government/publications/overarching-national-policy-statement-for-energy-en-1-2025. Accessed: April 2026.

[4] Department for Energy Security & Net Zero, 2025 [Online] National Policy Statement for renewable energy infrastructure. Available at: https://www.gov.uk/government/publications/national-policy-statement-for-renewable-energy-infrastructure-en-3-2025. Accessed: April 2026.

[5] Defra (2024). Guidance: Statutory biodiversity metric tools and guides. (Online) Available at: https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides. Accessed: April 2026.

[6] British Standards Institute (BSI) (2021). BS8683: 2021: Process for designing and implementing BNG Specification. Accessed: April 2026.

[7] Baker et al. (2016). Biodiversity net gain. Good practice principles for development, A practical guide. CIEEM, IEMA, CIRIA, UK. ISBN 978-0-86017-791-3. Accessed: April 2026.

[8] UKHab Ltd (2023). UK Habitat Classification Version 2.0 (Online) Available at https://www.ukhab.org. Accessed: April 2026.

[9] DEFRA (2023) Statutory biodiversity metric condition assessments. (Online) Available at https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides#:~:text=The%20statutory%20biodiversity%20metric%20tool,the%20statutory%20biodiversity%20metric%20tool. Accessed: April 2026.

[10] Defra (2023). The Statutory Biodiversity Metric User Guide. (Online) Available at: https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides. Accessed: April 2026.

[11] DEFRA (2023) [Online] Policy Paper: Local nature recovery strategies (Published 30 June 2023). Available at: https://www.gov.uk/government/publications/local-nature-recovery-strategies/local-nature-recovery-strategies. Accessed 1/07/2025.

[12] South Yorkshire County Council (2025) [Online] Local Nature Recovery Strategy. Available at: https://www.southyorkshire-ca.gov.uk/explore_local-nature-recovery-strategy. Accessed: April 2026.

[13] DEFRA Guidance (Last updated March 2026) Local nature recovery strategies: responsible authorities. Available at: https://www.gov.uk/government/publications/local-nature-recovery-strategies-areas-and-responsible-authorities/local-nature-recovery-strategies-responsible-authorities#south-yorkshire-12. Accessed: April 2026.

[14] City of Doncaster Council (2007) Doncaster biodiversity action plan. Available at: https://www.doncaster.gov.uk/services/environmental/doncaster-biodiversity-action-plan. Accessed: April 2026.

[15] Rotherham Metropolitan Borough Council (No Date) Natural Environment [Online] Available at: https://www.rotherham.gov.uk/conservation-regeneration/natural-environment. Accessed: April 2026.

[16] City of Doncaster Council (2021) Doncaster Local Plan. [Online] Available at:https://www.doncaster.gov.uk/services/environmental/doncaster-biodiversity-action-plan. Accessed: April 2026.

[17] City of Doncaster Council. Habitat Action Plans. [Online] Available at: https://www.doncaster.gov.uk/services/environmental/habitat-action-plans. Accessed: April 2026.

[18] Rotherham Metropolitan Borough Council (2012) [Online] Rotherham Biodiversity Action Plan 2012. Available at: https://www.rotherham.gov.uk/downloads/download/79/evidence-base-downloads. Accessed: April 2026.

[19] City of Doncaster Council (2024) Planning Policy Guidance: Assigning Strategic Significance (Online) Available at: https://www.doncaster.gov.uk/services/planning/mandatory-biodiversity-net-gain-bng. Accessed: April 2026.

[20] Holt, A.R., Zini, V. & Ashby, M. (2021) South Yorkshire natural capital and biodiversity mapping. Natural Capital Solutions Ltd, July 2021. (Online) Available at: https://www.southyorkshire-ca.gov.uk/getmedia/f1530d63-8657-4650-90a0-43c8c04ccfa5/South-Yorkshire-natural-capital-and-biodiversity-mapping.pdf.pdf. Accessed: April 2026.

[21] Defra (2024). Guidance: Statutory biodiversity metric tools and guides. (Online) Available at: https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides. Accessed: April 2026.

[22] Montag, H. MCIEEM, Armstrong, A., Carvahlo, F., Blaydes, H., Parker, G. MCIEEM, Remazeilles, A. ACIEEM and Jones, M. (2026). A standardised approach for biodiversity monitoring in solar farms: from development to application. In Practice, March 2026. Chartered Institute of Ecology and Environmental Management (CIEEM). Accessed: April 2026.

[23] Solar Energy UK (2025). Solar Habitat 2025. Available at: https://solarenergyuk.org/resource/solar-habitat-2025/. Accessed: April 2026.

[24] The Wildlife Trust (No Date) How to manage a hedgerow for wildlife. (Online) Available at: https://www.wildlifetrusts.org/how-manage-hedgerow-wildlife. Accessed: April 2026.

[25] Baker et al. (2016). Biodiversity net gain. Good practice principles for development, A practical guide. CIEEM, IEMA, CIRIA, UK. ISBN 978-0-86017-791-3. Accessed: April 2026.

[26] UK Government, 1990 [Online] Town and Country Planning Act 1990. Available at: https://www.legislation.gov.uk/ukpga/1990/8/contents.. Accessed: April 2026.

[27] DEFRA: Biodiversity net gain for nationally significant infrastructure projects (Opened 28 May 2025, closes 24 July 2025). Available at: https://consult.defra.gov.uk/biodiversity-net-gain/biodiversity-net-gain-for-nationally-significant-i/. Accessed: April 2026.

[28] UK Government, 2021 [Online] Environment Act 2021: Schedule 15. Available at: https://www.legislation.gov.uk/ukpga/2021/30/schedule/15. Accessed: April 2026.

[29] UK Government, (2024) The Environment Act 2021 (Commencement No. 8 and Transitional Provisions) Regulations 2024. Available at: https://www.legislation.gov.uk/uksi/2024/44/made Accessed: April 2026.

[30] UK Government (2024). The Biodiversity Gain Requirements (Exemptions) Regulations 2024. Available at: https://www.legislation.gov.uk/uksi/2024/47/contents/made. Accessed: April 2026.

[31] UK Government (2024). The Biodiversity Gain (Town and Country Planning) (Modifications and Amendments) (England) Regulations 2024. Available at: https://www.legislation.gov.uk/uksi/2024/50/contents/made. Accessed: April 2026.

[32] UK Government (2024). The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024. Available at: https://www.legislation.gov.uk/uksi/2024/48/contents/made. Accessed: April 2026.

[33] Defra (2023) Collection: Biodiversity net gain: Information you need for biodiversity net gain (BNG). Available at: https://www.gov.uk/government/collections/biodiversity-net-gain. Accessed: April 2026.

[34] Defra (2023) Guidance: Irreplaceable habitats: How biodiversity net gain (BNG) applies to irreplaceable habitat. Available at: https://www.gov.uk/guidance/irreplaceable-habitats. Accessed: April 2026.

[35] UK Government (2024) Guidance – Biodiversity Net Gain. Available at: https://www.gov.uk/guidance/biodiversity-net-gain. Accessed: April 2026.

[36] City of Doncaster Council, 2021 [Online] Doncaster Local Plan Adopted 23 Sept 2021. Available at: https://www.doncaster.gov.uk/services/planning/local-plan. Accessed: June 2025.

[37] Rotherham Metropolitan Borough Council (2024) [Online] Rotherham Local Plan Core Strategy. Available at: https://www.rotherham.gov.uk/planning-development/guide-local-plan. Accessed: June 2025

[38] UK Government (2024) [Online]Guidance: Biodiversity Net Gain. Available at: https://www.gov.uk/guidance/biodiversity-net-gain. Accessed: June 2025.

[39] Defra (2023) Collection: Biodiversity net gain: Information you need for biodiversity net gain (BNG). Available at: https://www.gov.uk/government/collections/biodiversity-net-gain. Accessed: June 2025.

[40] CIEEM, CIRIA, IEMA (2016) Biodiversity Net Gain: Good practice principles for development. Available at: https://cieem.net/wp-content/uploads/2019/02/Biodiversity-Net-Gain-Principles.pdf. Accessed: June 2025

[41] Baker, J, Hoskin, R, Butterworth, T (2019) Biodiversity net gain. Good practice principles for development. A practical guide (Part A) and Case studies (Part B) (C776F). Available at: https://cieem.net/wp-content/uploads/2019/02/C776a-Biodiversity-net-gain.-Good-practice-principles-for-development.-A-practical-guide-web.pdf. Accessed: June 2025

WHITESTONE
solar farm

Contact

Whitestone Net Zero Ltd

info@whitestonesolarfarm.co.uk

0800 688 9936