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# Introduction to Biodiversity Net Gain

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# What will we cover-

- Part 1 – BNG Context and Legislation
- Part 2 – Measuring Biodiversity
- Part 3 – BNG Planning and Implementation
- Q & A

# Definitions

<b>Biodiversity</b>	The variety of life on Earth at all its levels, from genes to ecosystems
<b>Biodiversity Net Gain</b>	A development process that leaves a measurably positive impact on biodiversity compared to what was there before.
<b>Biodiversity Metric</b>	A tool specifically designed by DEFRA to measure the value of biodiversity and biodiversity change across sites in England.

# The Environment Act 2021

The Act lays down the foundations of environmental legal requirements post the UK's exit from the European Union and updates UK legislation to deliver the Government 25-year environment plan. The Act sets out through over 200 provisions, targets plans and policies for:



- Mandates net gain in biodiversity through the planning system (Post 12<sup>th</sup> February 2024)
- Sets a minimum threshold for net gain of 10%.
- Requires the use of a Biodiversity Metric to calculate biodiversity enhancements
- Stipulates that actions pursuant to net gain are maintained for 30 years.

# Secondary Legislation - BNG Exemptions

The Biodiversity Gain Requirements (Exemption) Regulations 2024

## De minimus threshold

- Does not impact a priority habitat (e.g. broad-leaved woodland)
- Impacts <25 sqm of non-priority habitat
- Impacts < 5 m of non-priority hedgerows
- Includes minor application for a accessibility ramp
- Includes developments entirely on hardstanding

## Householder developments

- Includes minor domestic development including adding a side return or development within the curtilage of a house.

## Biodiversity gain sites

- Development which solely enhance biodiversity to meet a BNG condition for another development
- Development to fulfil the BNG condition and for the purpose of permitting public access to use the site or for educational use but without a fee.

## Small-scale self build

- Consists of no more than 9 dwellings
- Site is <0.5 ha
- Consists entirely of dwellings that are classified as self build or custom build in the Self Build and Custom Housebuilding Act 2015.

# Secondary Legislation - Irreplaceable Habitats

The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024)



<https://www.woodlandtrust.org.uk/>

<https://www.suffolkwildlifetrust.org/>

<https://www.nationaltrust.org.uk/>

<https://www.nature.scot/>

<https://www.northumberlandnationalpark.org.uk/>

<https://www.hiwwt.org.uk/>

# Secondary legislation - Biodiversity Gains Register

## The Biodiversity Gain Site Register Regulations 2024

Gain site reference number

**BGS-150424001**

Gain site Habitat Allocation Amendments

### Gain Site

**Gain site size** 27.24 hectares (ha)

**Grid reference** SP6958906762

**Local Planning Authority or responsible body** Buckinghamshire LPA

**Land boundary** [Link to land boundary](#)

**Start date** 25 September 2023

The start date of the enhancement works, if they started before registration

**End date** 25 September 2055

The date when the last obligation to create and maintain an enhancement has ended

Gain site reference number

**BGS-150424001**

Gain site Habitat Allocation Amendments

### Allocation information

There could be more than one allocated site in each development.

#### Planned habitat

Planned habitat enhancements from this gain site that have been allocated to a development

**Local Planning Authority** Buckinghamshire LPA

**Planning reference number** 24/00977/APP

**Project name**

#### Biodiversity value

**Habitat type** Value

**Area** 1.22

**Area** **Condition** **Area in hectares (ha)**

# The Statutory Metric



Department  
for Environment  
Food & Rural Affairs

## The Statutory Biodiversity Metric

### User Guide

First published: February 2024

Last updated: July 2024

On-site baseline	Habitat units	2.11	
	Hedgerow units	0.08	
	Watercourse units	0.00	
On-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	2.34	
	Hedgerow units	0.13	
	Watercourse units	0.00	
On-site net change (units & percentage)	Habitat units	0.23	10.69%
	Hedgerow units	0.04	54.63%
	Watercourse units	0.00	0.00%
Off-site baseline	Habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site net change (units & percentage)	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)	Habitat units	0.23	
	Hedgerow units	0.04	
	Watercourse units	0.00	
Spatial risk multiplier (SRM) deductions	Habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
<b>FINAL RESULTS</b>			
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	0.23	
	Hedgerow units	0.04	
	Watercourse units	0.00	
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	10.69%	
	Hedgerow units	54.63%	
	Watercourse units	0.00%	
Trading rules satisfied?	Yes ✓		

#### Table 1 - L1 Habitat Assessment

Habitat Assessment Criteria	Minimum Assessed 1% of area
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The overall represents a good example of its habitat type, with a consistently high proportion of characteristics (indicator species present relevant to the specific habitat type, and relevant to Common 5 suboptimal species which may be listed in the L1-100 descriptor)

**Note** - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.

Divard height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.

Cover of bare ground is between 1% and 5%, including ice/sed areas, for example, rubble, stones?

There is no bare *Phlebotomus* spp. in less than 20% and none of seeds (including bromes *Aeluropus* spp.) is less than 5%.

Combined cover of species indicative of suboptimal condition and physical damage (such as excessive poaching, damage from machinery use or storage, damage to cover of access, or any other damaging management activities) accounts for less than 10% of total area.

1 or 2 or 3 or more native plant species (as listed in Schedule 6 of WCA) are present. This criterion is conditionally failed.

**Additional Criteria** - must be successful for all non-acid grassland types:

There are 10 or more vascular plant species per m<sup>2</sup> present, including to be that are characteristic of this habitat type (species referenced in Common 5 and 6 and not within the scope of this audit).

**Note** - this criterion is essential for achieving Good condition for non-acid grassland types only.

Essential criteria for Good condition achieved (for non-acid grassland)



# Measuring Biodiversity

- Habitat Focused
- Measures Habitat, Hedgerows and Rivers
- Area x Habitat Quality x Habitat Condition x Strategic Significance = Biodiversity Units (BU)
- Applied to all existing and proposed habitats
- Discount multipliers add to created habitats

Ref	Existing area habitats				Distinctiveness	Condition	Strategic significance	Required Action to Meet Trading Rules	Ecological baseline
	Broad Habitat	Habitat Type	Irreplaceable habitat	Area (hectares)	Distinctiveness	Condition	Strategic significance		Total habitat units
3	Urban	Developed land, sealed surface	No	0.331	V.Low	N/A - Other	Area/compensation not in local strategy/ no local strategy	Compensation Not Required	0.00
4	Urban	Developed land, sealed surface	No	0.403	V.Low	N/A - Other	Area/compensation not in local strategy/ no local strategy	Compensation Not Required	0.00
5	Urban	Introduced shrub	No	0.014	Low	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required ≥	0.03
6	Urban	Artificial unvegetated, unsealed surface	No	0.005	V.Low	N/A - Other	Area/compensation not in local strategy/ no local strategy	Compensation Not Required	0.00
7	Woodland and forest	Other woodland, broadleaved	No	0.14	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required (≥)	1.12
8	Individual trees	Urban tree	No	0.081	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required (≥)	0.65
9									
10									
11									
12									
13									
				<b>Total habitat area</b>	1.08				
				<b>Site Area (Excluding area of individual trees, green walls, intertidal hard structures)</b>	1.00				2.11

# Measuring Biodiversity Change



- Change = Loss, retain, enhance or create
- Net Change =  
Future site value – Existing site value
- + score = Net Gain, - score = net loss
- 10% BNG target calculated based on baseline value of the site

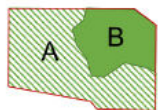
# BNG Example

Development site



## Pre-intervention 'baseline'

The site survey identifies two habitat types: A and B.



## Biodiversity units of habitat



## Sub-totals

135 units



## Post-intervention

The development footprint will destroy about two-thirds of the habitat on site.



## LOSSES of habitats A and B



70 units



## RETAINED habitat



The remaining area of habitat B is retained

40 units

40 units



## ENHANCED habitat



The remaining habitat A is enhanced, for example, by improving its condition, which uplifts its unit value

25 units plus uplift of 25 units (total = 50 units)

50 units

(retained + enhanced) – baseline = change in biodiversity

$$(40 + 50) - 135 = -45 \text{ units}$$

45 units of off-site compensation is required to avoid a biodiversity loss, or the design could be revisited to reduce losses

# Biodiversity Metric Rules

**Table 2 Biodiversity metric rules**

Rule	Rule detail
<b>Rule 1</b>	The trading rules of this biodiversity metric must be followed.
<b>Rule 2</b>	Biodiversity unit outputs, for each type of unit, must not be summed, traded, or converted between types. The requirement to deliver at least a 10% net gain applies to each type of unit.
<b>Rule 3</b>	<p>To accurately apply the biodiversity metric formula, you must use the statutory biodiversity metric calculation tool or small sites biodiversity metric tool (SSM) for small sites.</p> <p>The tools remove the need for a user to manually calculate the change in biodiversity value.</p> <p>The tool will summarise the results of the calculation and inform a user whether the biodiversity net gain objective has been met.</p>
<b>Rule 4</b>	<p>In exceptional ecological circumstances, deviation from this biodiversity metric methodology may be permitted by the relevant planning authority.</p> <p><a href="#">See more about applying rule 4</a></p>

**Table 3 Trading rules (Rule 1) to compensate for losses**

Baseline habitat distinctiveness	Area	Hedgerow	Watercourse
<b>Very high</b>	Priority should be given to replacing losses with area habitat units of the same habitat type (see below notes on trading)	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 (see below notes on trading)
<b>High</b>	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
<b>Medium</b>	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
<b>Low</b>	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
<b>Very low</b>	Not applicable	Losses must be replaced with hedgerow units of the same or of a higher band	Not applicable

# Biodiversity Net Gain Hierarchy

**A** For onsite habitats of medium, high or very high distinctiveness:

1) first avoid adverse effects

2) where unavoidable, mitigate those adverse effects

**B** Compensate for adverse effects to all onsite habitats by:

1) Onsite habitat enhancements

2) Creation of new habitats onsite

3) Registered offsite biodiversity gain

4) Purchase of statutory biodiversity credits

Onsite

Offsite

**Biodiversity Gain Sites**

# Biodiversity Gain Sites

(Habitat Banks, Biodiversity Offsets)

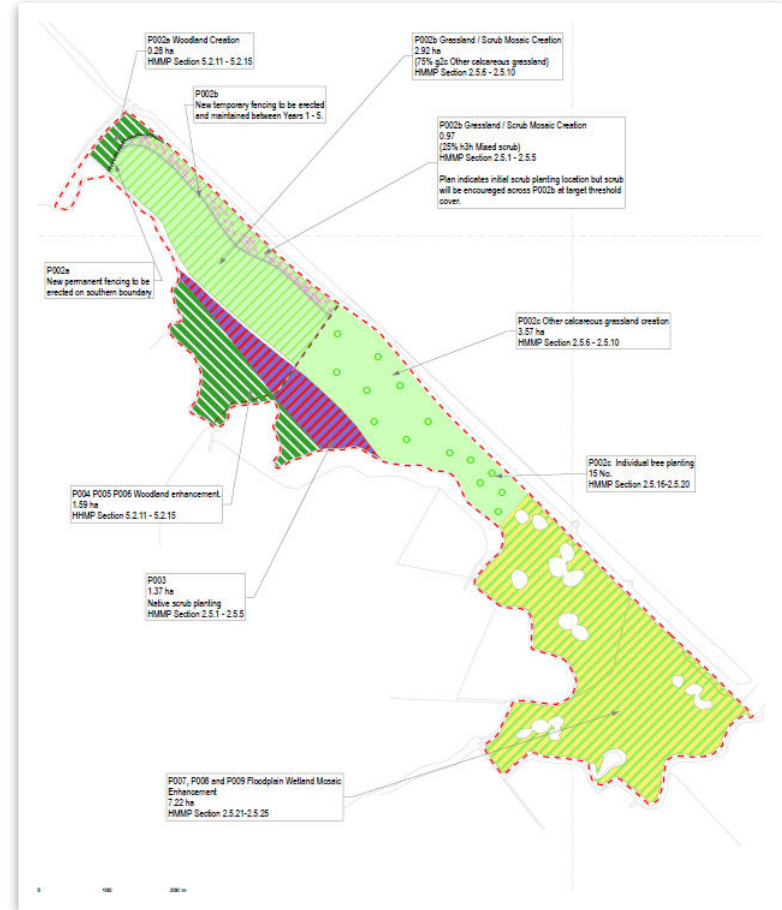
- **Only considered where a net gain can't be achieved on site.**
- **Credits purchased from a third-party landowner**
- **Priority to focus on local delivery first**
- **Financial penalty for delivering further afield**
- **Sites listed on the National Sites Registry or other BNG Credit Platforms**
- **Pricing varied and subject to market availability**

# Statutory Credits

- **Can only be purchased as a last resort (Proof needed that all options have been considered)**
- **Credits administered and sold by Natural England**
- **Purchase of 2 credits for every credit lost**
- **High cost (prices designed to be disincentive to support the development of a BNG market)**
- **Credits increase in price, the higher the habitat value**
- **Cannot be used for bespoke compensation (i.e irreplaceable habitats)**

# Biodiversity Gain Sites

- Any land capable of demonstrating a measurable benefit for biodiversity
- Enhancements must be additional (i.e. not funded through an existing mechanism)
- Must be owned or leased with full control of the land for a minimum period of 30 years
- No size threshold but economies of scale count
- Be able to be registered on the National Sites Registry
- Underpinned by a legal agreement or covenant with a Local Authority or Responsible Body
- Stacking is possible in limited circumstances



# BNG Requirements

## Planning Applications

- **Baseline Ecological Survey**
- **Completed Biodiversity Metric**
- **Habitat Management and Monitoring Plan (30 years)\***
- **Legal: Planning condition / S106 Agreement**
- **Biodiversity Net Gain Plan**
- **Other planning documents: e.g. protected species surveys, landscaping plans**

\* For all 'significant on site enhancements'

## Biodiversity Gain Sites

- **Baseline Ecological Survey**
- **Completed Biodiversity Metric**
- **Habitat Management and Monitoring Plan (30 years)**
- **Legal: S106 Agreement / Conservation Covenant**
- **Landownership/Lease Agreement**
- **Other: e.g. Costing model, feasibility surveys, developer sales agreement, planning permission?**





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Questions?

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## Resources

Topic	Link
BNG Overview	<a href="https://www.gov.uk/guidance/biodiversity-net-gain">https://www.gov.uk/guidance/biodiversity-net-gain</a>
BNG Exemptions	<a href="https://www.gov.uk/guidance/biodiversity-net-gain-exempt-developments">https://www.gov.uk/guidance/biodiversity-net-gain-exempt-developments</a>
National Sites Registry	<a href="https://www.gov.uk/guidance/search-the-biodiversity-gain-sites-register">https://www.gov.uk/guidance/search-the-biodiversity-gain-sites-register</a>
Other Biodiversity Gain Site Platforms	<ul style="list-style-type: none"><li>• <a href="https://www.futurehomes.org.uk/biodiversityunitfindermap">https://www.futurehomes.org.uk/biodiversityunitfindermap</a></li><li>• <a href="https://www.wildlifetrusts.org/nature-based-solutions/biodiversity-net-gain/habitat-banks">https://www.wildlifetrusts.org/nature-based-solutions/biodiversity-net-gain/habitat-banks</a></li><li>• <a href="https://marketplace.gaiacompany.io/hub/marketplace">https://marketplace.gaiacompany.io/hub/marketplace</a></li><li>• <a href="https://www.bngfinder.co.uk/developers">https://www.bngfinder.co.uk/developers</a></li></ul>
Conservation Covenants	<a href="https://defraenvironment.blog.gov.uk/2024/04/22/conservation-covenants-putting-environmental-commitments-into-law/">https://defraenvironment.blog.gov.uk/2024/04/22/conservation-covenants-putting-environmental-commitments-into-law/</a>
List of Responsible Bodies	<a href="https://www.gov.uk/government/publications/conservation-covenant-agreements-designated-responsible-bodies/conservation-covenants-list-of-designated-responsible-bodies">https://www.gov.uk/government/publications/conservation-covenant-agreements-designated-responsible-bodies/conservation-covenants-list-of-designated-responsible-bodies</a>
Selling Biodiversity Units	<a href="https://www.gov.uk/guidance/sell-biodiversity-units-as-a-land-manager">https://www.gov.uk/guidance/sell-biodiversity-units-as-a-land-manager</a>
Biodiversity metric and guidance	<a href="https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides">https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides</a>
Middlemarch BNG Services	<a href="https://www.middlemarch.eco/">https://www.middlemarch.eco/</a>