BIODIVERSITY NET GAIN CALCULATION

RADSTOCK PRIMARY SCHOOL
RADSTOCK LANE
EARLEY
RG6 5UZ

Client: Wokingham Borough Council
Our reference: ECO3655b
Report date: 14 January 2025
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1.0 Survey and reporting

1.1 This report details the results of a Biodiversity Net Gain Calculation for a proposed development at Radstock Primary School, Radstock Land, Earley, RG6 5UZ.

1.2 It has been undertaken using the Statutory Biodiversity Metric published by DEFRA on 29 November 2023 (updated in July 2024).

The survey site

1.3 The survey site is located at the southern end of Radstock Lane, a predominantly residential road in Earley, Reading (Grid reference SU 7463 7052, Figure 1).

1.4 It comprises a tarmac netball court, a tarmac access road and car parking area and small areas of amenity grassland.

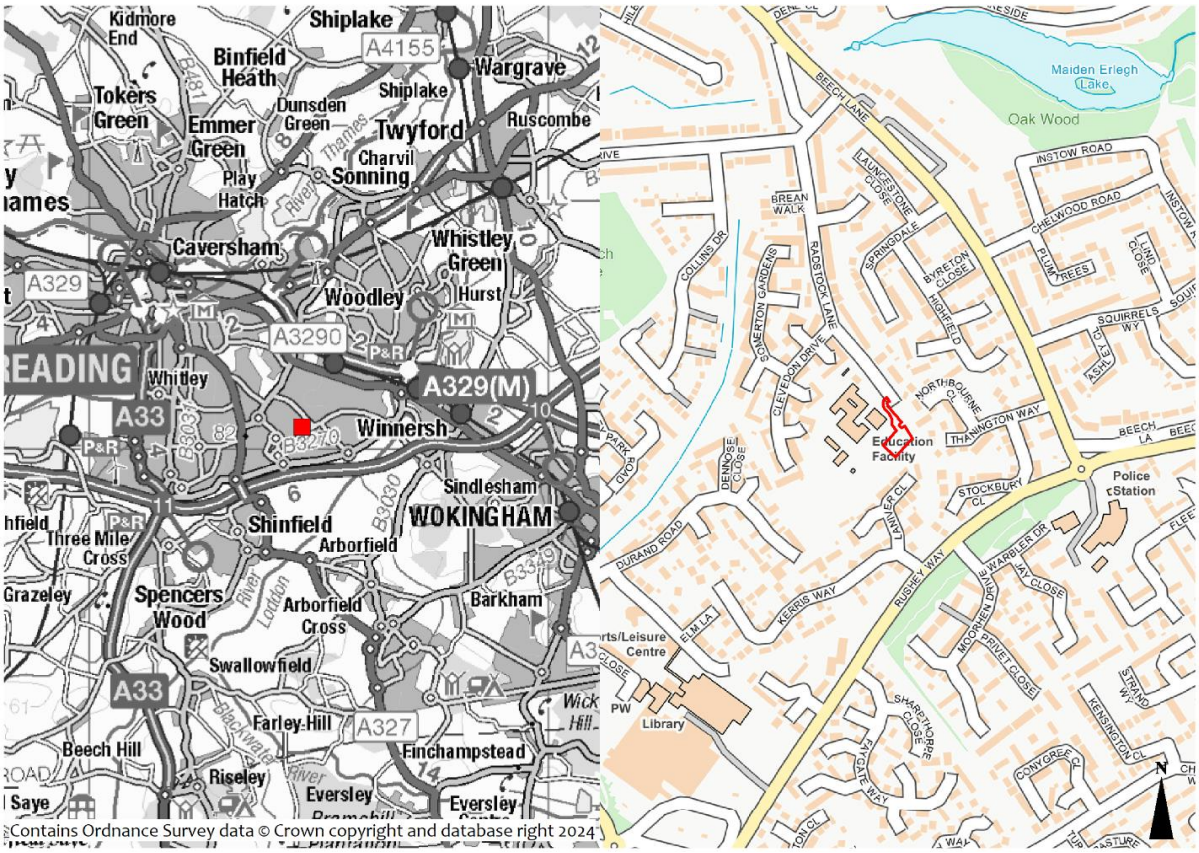
1.5 It is approximately 0.12ha in area.

The proposed scheme

1.6 It is proposed to erect a single-storey classroom building on the existing tarmac netball court (see Figure 2).

1.7 It is understood no trees will be affected by the proposals.

Figure 1 – Site location plan



Survey to inform the assessment

1.8 The assessment was based on an ecological survey, carried out on 28 November 2024.

Surveyor details

1.9 The survey was undertaken by Cherry Leung MSc (assistant ecologist) of GS Ecology Ltd. Cherry is a Qualifying member of CIEEM.

Figure 2 – Proposed site plan

2.0 Biodiversity net gain calculation

2.1 The Environment Act 2021 became law on 9 November 2021. It requires (through amendments to the Town and Country Planning Act 1990) all planning permissions in England, with some exemptions, to be granted subject to a new general pre-commencement condition that requires approval of a biodiversity gain plan.

2.2 This system is commonly referred to as Biodiversity Net Gain and it is a cornerstone of the government's 25 Year Environment Plan.

2.3 This became mandatory on 12 February 2024 for major applications and 2 April 2024 for minor applications.

2.4 Article 7 of The Town and Country Planning (Development Management Procedure) (England) Order 2015 sets out the minimum information that a planning application must be accompanied by (see Table 1 below).

2.5 It is worth noting that the minimum information does not require an assessment of post development biodiversity units. This is because this information would have to be provided in the Biodiversity Gain Plan when the biodiversity gain condition is discharged.

Table 1 – Statutory BNG minimum information requirements

Minimum information	Response for this application
1) Confirmation that the applicant believes that planning permission, if granted, the development would be subject to the biodiversity gain condition;	Yes if granted, the development would be subject to the biodiversity gain condition
2) The pre-development biodiversity value(s), either on the date of application or earlier proposed date (as appropriate);	See completed Statutory Metric tool provided with this report.
3) Where the applicant proposes to use an earlier date, this proposed earlier date and the reasons for proposing that date;	28 November 2024 (the date of the survey)
4) The completed metric calculation tool showing the calculations of the pre-development biodiversity value of the onsite habitat on the date of application (or proposed earlier date) including the publication date of the biodiversity metric used to calculate that value;	Provided with this report
5) A statement whether activities have been carried out prior to the date of application (or earlier proposed date), that result in loss of onsite biodiversity value ('degradation'), and where they have: - a statement to the effect that these activities have been carried out; - the date immediately before these activities were carried out; - the pre-development biodiversity value of the onsite habitat on this date; - the completed metric calculation tool showing the calculations, and - any available supporting evidence of this;	No activities had been carried out prior to the date of the survey that had resulted in the loss of onsite biodiversity value.
6) A description of any irreplaceable habitat (as set out in column 1 of the Schedule to the Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024) on the land to which the application relates, that exists on the date of application, (or an earlier date); and	There are no irreplaceable habitats on the land to which the application relates
7) Plan(s), drawn to an identified scale and showing the direction of North, showing onsite habitat existing on the date of application (or earlier proposed date), including any irreplaceable habitat (if applicable).	See plans in Appendix 3.

Degradation of habitats

2.6 There are special provisions for the calculation of the pre-development biodiversity value of onsite habitat when loss or impact to habitats (or 'degradation') has occurred prior to the submission of a planning application and Biodiversity Gain Plan in order to discourage the deliberate degradation of existing onsite habitats to reduce the pre-development biodiversity value.

2.7 For the Biodiversity Plan, Paragraph 6 of Schedule 7A of the Town and Country Planning Act 1990 makes provision relating to unauthorised degradation takes place, and Paragraph 6A of the 1990 Act makes provision relating to degradation taking place which is in accordance with a planning permission:

- Where unauthorised degradation of the onsite habitat has taken place on the land between 30 January 2020 and the date of relevant date, the biodiversity pre-development value of the onsite habitat should be calculated as the biodiversity value of the habitat on the date immediately before the carrying out of these degradation activities. The relevant date should therefore be set as a date immediately before these activities. Unauthorised degradation of onsite habitat is any degradation which is not in accordance with a previous planning permission.
- If activities to implement or in connection with a planning permission are carried out after 25 August 2023 that lower the biodiversity value of the onsite habitat, the pre-development biodiversity value of the onsite habitat is taken to be the biodiversity value immediately before the carrying out of the activities. The relevant date should therefore be set as a date immediately before these activities.

2.8 If there has been degradation and there is insufficient evidence about the biodiversity value of the onsite habitat immediately before the degradation, the pre-development biodiversity value of the onsite habitat must be taken to be the highest biodiversity value of the habitat which is reasonably supported by any available evidence relating to it. This requirement must be applied to the calculation of pre-development biodiversity value in the metric tool, and the Biodiversity Gain Plan template asks for information regarding whether there has been prior habitat degradation.

2.9 Unauthorised degradation is defined in the environment act as

"activities on land on or after 30 January 2020 otherwise than in accordance with—

(i) planning permission, or

(ii) any other permission of a kind specified by the Secretary of State by regulations"

The biodiversity gain condition

2.10 All planning applications will be approved subject to the biodiversity gain condition. The condition requires a Biodiversity Gain Plan (as a separate discharge of conditions application) to be submitted and approved by the planning authority to discharge the biodiversity gain condition prior to the commencement of development.

2.11 The Biodiversity Gain Plan can be submitted no earlier than the day after planning permission has been granted. It needs to include the following:

(1) information about the steps taken or to be taken to minimise the adverse effect of the development on the biodiversity of the onsite habitat and any other habitat;

(2) the pre-development biodiversity value of the onsite habitat;

(3) the post-development biodiversity value of the onsite habitat;

(4) any registered off-site biodiversity gain allocated to the development and the biodiversity; and

(5) any biodiversity credits purchased for the development.

Purpose of this report

2.12 The purpose of this report is to provide the planning authority with the information required to determine the planning application in relation to BNG. It includes the minimum information as set out in the Article 7 of The Town and Country Planning (Development Management Procedure) (England) Order 2015 (see Table 1 above).

2.13 It also details the anticipated habitats (if known) after development and whether a 10% BNG will be achieved. If 10% BNG not be achieved it provides possible options for doing this.

2.14 It is worth noting that National Planning policy Guidance reads:

> "The statutory framework for biodiversity net gain involves the discharge of the biodiversity gain condition following the grant of planning permission to ensure the objective of at least 10% net gain will be met for a development. The determination of the Biodiversity Gain Plan under this condition is the mechanism to confirm whether the development meets the biodiversity gain objective. Development may not be begun until the Biodiversity Gain Plan is approved.
>
> Given this, it would generally be inappropriate for decision makers, when determining a planning application for a development subject to biodiversity net gain, to refuse an application on the grounds that the biodiversity gain objective will not be met."

The Statutory Biodiversity Metric

2.15 The Statutory Biodiversity Metric is a system for calculation habitat losses or gains from a project using habitats, measured using Habitat Units (HUs) as a proxy measure. It is accompanied by an excel spreadsheet calculator that assigns values to habitats before a change (PRE-intervention values) and assumed habitat values after the change (POST-intervention values).

2.16 The metric uses the habitat categories that mainly align with UK Habitat Classification Habitat (which is a system for habitat classification that has been developed as an alternative to the Phase 1 Habitat Classification).

2.17 The metric calculates two values: PRE-intervention HU Values and POST-intervention HU values – described below.

PRE-intervention Habitat Unit Values

2.18 The baseline or PRE-intervention Habitat Unit (HU) Value is a factor of:

- The area of the habitat parcel
- The distinctiveness of the Habitat Type [Very Low; Low; Medium; High; Very High]
- The habitat condition assessed using the Condition assessment sheets - [Poor; Moderate; Good]

- The strategic significance [High, within area formally identified in local strategy; Moderate - location ecologically desirable but not in local strategy; Low - area/compensation not in local strategy/ no local strategy]

POST-intervention HU values

2.19 The POST-intervention HU value is a factor of:

- The area of the habitat parcel
- The distinctiveness of the Habitat Type ranging [Very Low; Low; Medium; High; Very High]
- The target habitat condition at a defined number of years [Poor; Moderate; Good]
- The strategic significance [High, within area formally identified in local strategy; Moderate - location ecologically desirable but not in local strategy; Low - area/compensation not in local strategy/ no local strategy]
- The time to target condition [assigned by the Metric to a default time]
- The difficulty of creation of that habitat [assigned by the Metric]
- The spatial risk category - a multiplier to discourage creation of habitats far from the site of biodiversity loss.

Types of HU

2.20 There are three types of HU:

- Area habitats (such as grasslands and woodlands) – "A-HUs"
- Linear hedgerows and lines of trees – "L-HUs"
- Linear rivers and streams – "R-HUs"

2.21 The HU types are not interchangeable.

Description of habitats within the red line planning boundary

2.22 The application site comprises a tarmac netball court, a tarmac access road and car parking area and small areas of amenity grassland. A description of the habitats is given in our preliminary ecological appraisal dated 14 January 2025 (reference ECO3655).

Assumptions made

2.23 The proposed plan given in Figure 2 above was used to calculate the post-intervention habitats.

2.24 Maps showing habitats before and after development are given in Appendix 3 and 4.

Pre-intervention

2.25 The Statutory Biodiversity Metric Habitats within the application site at the time of our survey, and their descriptions, extent and condition pre-development are as follows:

Area Habitat Units

Developed land – sealed surface (0.108 hectares pre-development).

2.26 This is the tarmac access road and car parking area, concrete footpath and tarmac netball court.

2.27 There is no condition assessment for this habitat type as the metric does not require one.

Grassland – Modified grassland (0.017ha pre-development)

2.28 These are the areas of short-cut amenity grassland around the netball court and adjacent to the concrete footpath.

2.29 The grassland is in 'poor' condition (see Appendix 1)

Post-intervention

2.30 The assumed Statutory Biodiversity Metric Habitats and their descriptions, extent and condition post-development are described below.

New and retained: Urban - Developed land- sealed surface (0.107hectares total)

2.31 This is the retained access road, and the new classroom building and its associated new car parking area.

2.32 There is no condition assessment for this habitat type as the metric does not require one.

New and retained: Grassland – Modified grassland (0.018 hectares)

2.33 This is the retained and new areas of amenity grassland around the new classroom building and retained areas of amenity grassland along the concrete footpath.

2.34 It is assumed to be managed in similar existing fashions and achieve 'poor' condition.

Linear Habitat Units

2.35 There are no linear habitats within the application site before and after development and as such no assessment of L-HUs has been undertaken.

3.0 Results and Assessment

Area Habitat Units

3.1 The calculation shows that there are 0.03 A-HUs before development and 0.04A-HUs after development. This equates to a net gain of 0.01 A-HUs or 5.68% above the on-site A-HU baseline.

3.2 The summary sheet from the Metric is given in Appendix 2.

3.3 The development does not achieve the 10% net gain in A-HU that is required by law. It might be possible to achieve a 10% net gain on site by planting a 'small' tree within the newly created modified grassland, which would provide more than 30% net gain in A-HUs. If it is not feasible to plant this tree within the RLB, it could be planted in another area of the school grounds. It should be noted that if the proposed new habitats are not within the RLB then they will need to be registered on the Biodiversity Gain Register. This would incur a fee and legal costs which is unlikely to be cost effective.

Linear Habitat Units

3.4 There are no linear habitats within the application site and as such assessment of L-HUs has been undertaken.

Biodiversity Gain Condition

3.5 Details of on-site or off-site creation or enhancement will be provided in the Biodiversity Gain Plan that will be submitted to discharge the Biodiversity Gain condition.

3.6 A developer must submit the Biodiversity Gain Plan to be approved by the planning authority. This can be done no earlier than the day after planning permission has been granted.

3.7 To achieve a 10% net gain in A-HUs 0.04 A-HUs (i.e. the baseline plus 10%) onsite or offsite would need to be provided. It could be provided by planting a 'small' tree within the newly created amenity grassland. Alternatively, the requisite units could be purchased from an offset provider, or alternatively as a last resort (if no such credits are available) statutory biodiversity credits could be bought from the government. Offsite A-HUs cost in the region of £20 to £40K per unit (plus legal costs).

Appendix 1 – Condition assessment sheets

Grassland – Modified grassland

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	There are 6-8 vascular plant species per m^2 present, including at least 2 forbs (these may include those listed in Footnote 1). **Note - this criterion is essential for achieving Moderate or Good condition.** Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m^2 (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.	No	There are less than 6 vascular plant species per m^2.
B	Sward 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 vertebrates and invertebrates to live and breed.	No	The sward is uniformly cut
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble *Rubus fruticosus* agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Yes	No scrub within the habitat
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	Yes	There is no damage
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens)[2].	No	There is no bare ground
F	Cover of bracken *Pteridium aquilinum* is less than 20%.	Yes	There is no bracken
G	There is an absence of invasive non-native plant species[3] (as listed on Schedule 9 of WCA[4]).	Yes	No invasive non-native species is present
	Essential criterion achieved (Yes or No)		No
	Number of criteria passed		4

Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved
Passes 6 or 7 criteria including passing essential criterion A	Good (3)	
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)	
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor (1)	Yes

Appendix 2 – Statutory Biodiversity Metric summary sheet

Radstock Primary School				
Headline Results	Return to results menu			
Scroll down for final results ⚠				
On-site baseline	*Habitat units*	0.03		
	Hedgerow units	0.00		
	Watercourse units	0.00		
On-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	0.04		
	Hedgerow units	0.00		
	Watercourse units	0.00		
On-site net change (units & percentage)	*Habitat units*	0.00	5.68%	On-site net gain is less than target set ⚠
	Hedgerow units	0.00	0.00%	
	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*	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Spatial risk multiplier (SRM) deductions	*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)	*Habitat units*	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	5.68%	Total net gain achieved is less than target set ▲	
	Hedgerow units	0.00%		
	Watercourse units	0.00%		
Trading rules satisfied?	Yes ✓			

Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
Habitat units	10.00%	0.03	0.04	0.00	
Hedgerow units	10.00%	0.00	0.00	0.00	No additional hedgerow units required to meet target ✓
Watercourse units	10.00%	0.00	0.00	0.00	No additional watercourse units required to meet target ✓

Appendix 3 – Habitats before development

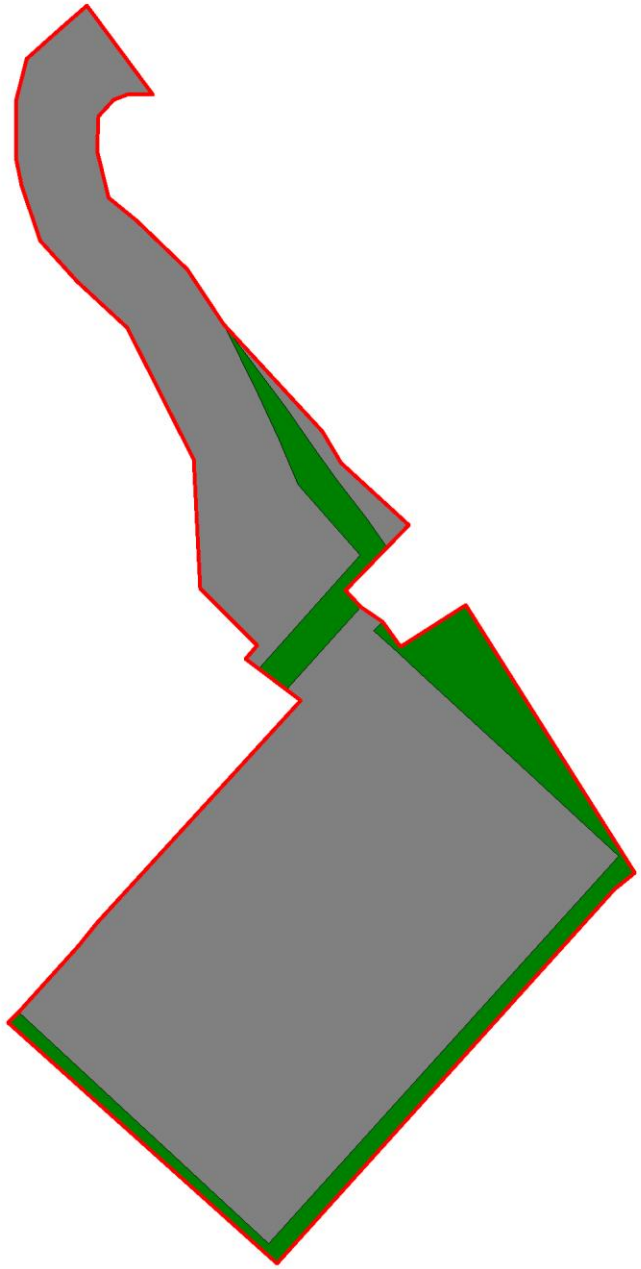
Legend

Application site boundary

Habitat type before development

Urban - Developed land- sealed surface

Grassland - Modified grassland



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Kilometres

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Appendix 4 – Habitats after development

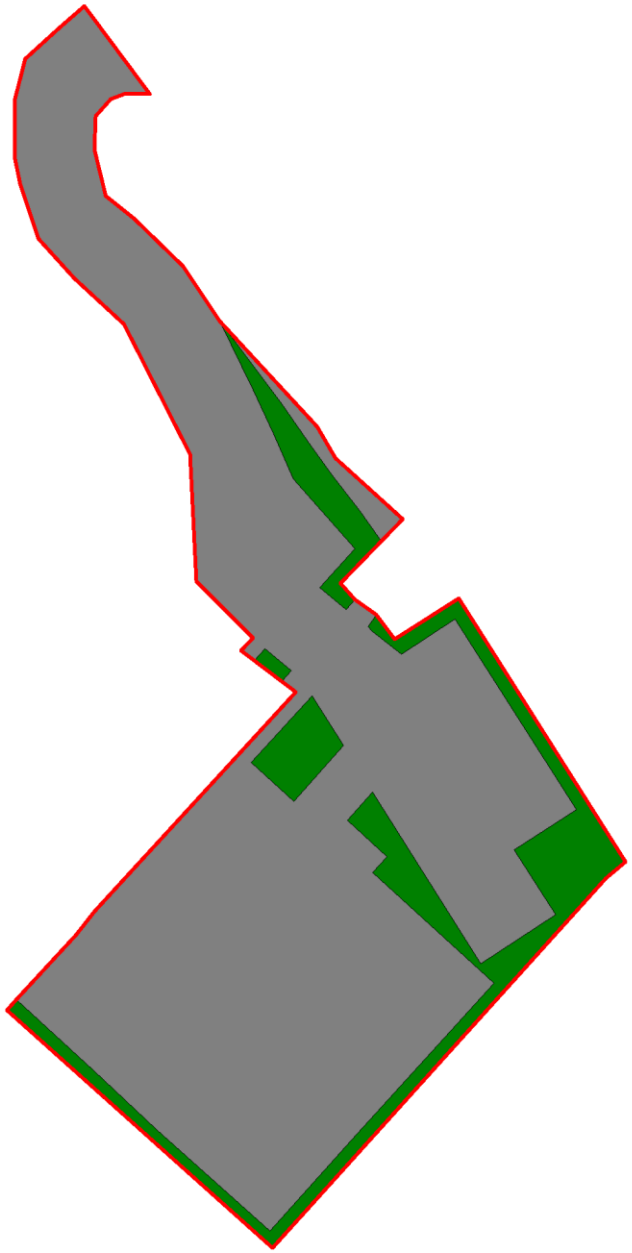
Legend

Application site boundary

Habitat type after development

Urban - Developed land- sealed surface

Grassland - Modified grassland



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Appendix 5 - About GS Ecology

Established in 2009, GS Ecology is an independent ecological consultancy in Berkshire. We carry-out surveys and ecological consultancy services for public and private sector clients.

Our work is undertaken by experienced and qualified ecologists, who are members of the Chartered Institute of Ecology and Environmental Managers. Our services include:

- Ecology surveying and reporting to inform planning applications, e.g.
  - Preliminary Ecological Appraisal
  - Extended Phase 1 Habitat Survey
  - Protected species surveys, e.g. bats, badgers, dormouse, great crested newts
- BREEAM ecology assessments – to demonstrate the sustainability of a new building
- Protected species licensing such as bat and great crested newt licences for development sites after planning permission has been obtained
- Providing advice to land managers and writing ecological management plans, such as woodland management plans and farm environmental plans for England woodland Grant Scheme and Environmental Stewardship applications
- Providing ecology advice to Local Authorities and Local Planning Authorities