

BIODIVERSITY NET GAIN REPORT

Ref: 1822

Basement Bakehouse

EXECUTIVE SUMMARY

ECOassistance have been commissioned to carry out a Biodiversity Net Gain (BNG) assessment at: Bowls Pavilion, Windmill Memorial Gardens, Clarence Place, Gravesend, Kent, DA12 1LB. The site is to be the subject of an upcoming planning application.

The baseline habitat units for the site have been calculated using the Statutory Biodiversity Metric Calculation Tool. This report utilises Version 1.0.4 of the Statutory Biodiversity Metric Calculation Tool which was released on 03/07/25.

The baseline value for the site = 0.12 habitat units. In order to meet the statutory requirement and the local plan target for this site the development must provide +10% BNG of these figures; including offsetting any biodiversity losses which occur. Under the current proposals a total of 0.08 habitat units are to be lost through development.

Under the current proposals habitat losses are considered unavoidable. Without off-site interventions the proposals are expected to lead to a 0.09 unit deficit of the habitat units required to achieve the mandatory +10% BNG.

It has been concluded through the assessment process that it is not possible to provide +10% BNG through on-site interventions. BNG +10% will need to be secured by purchasing the requisite number of credits to meet the BNG obligation through an off-site provider.

This assessment has been undertaken so that the planning application can be validated. The biodiversity metric tool has been provided to the client separately for the purpose of seeking out an off-site provider of biodiversity units to make their own enquiries over purchase costs and to complete the BNG process.

The off-site provider will create or enhance habitats to generate biodiversity units to meet the 0.09 unit deficit of habitat units. The units provided will be subject to a spatial risk multiplier and the biodiversity metric tool will calculate the value of off-site actions relative to the project. In real terms it is likely that >0.09 habitat units will be required to be purchased off-site due to a spatial risk multiplier.

Table 1: Biodiversity units the on-site baseline, on-site post-intervention and total on-site net change in biodiversity units

On-site baseline	<i>Area habitat units</i>	0.12	
	<i>Hedgerow units</i>	0.00	
	<i>Watercourse units</i>	0.00	
On-site post-intervention (Including habitat retention, creation & enhancement)	<i>Area habitat units</i>	0.04	
	<i>Hedgerow units</i>	0.00	
	<i>Watercourse units</i>	0.00	
On-site net change (units & percentage)	<i>Area habitat units</i>	-0.08	-67.01%
	<i>Hedgerow units</i>	0.00	0.00%
	<i>Watercourse units</i>	0.00	0.00%

Table 2: Biodiversity units for habitat units for the off-site baseline, off-site post-intervention and total off-site net change in biodiversity units. This does not include spatial risk multiplier deductions

Off-site baseline	<i>Area habitat units</i>	0.00	
	<i>Hedgerow units</i>	0.00	
	<i>Watercourse units</i>	0.00	
Off-site post-intervention (Including habitat retention, creation & enhancement)	<i>Area habitat units</i>	0.00	
	<i>Hedgerow units</i>	0.00	
	<i>Watercourse units</i>	0.00	
Off-site net change (units & percentage)	<i>Area habitat units</i>	0.00	0.00%
	<i>Hedgerow units</i>	0.00	0.00%
	<i>Watercourse units</i>	0.00	0.00%

Table 3: Sum of the on-site and off-site unit change before the spatial risk multiplier deductions are made, and the biodiversity unit value of spatial risk multiplier deductions.

Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Area habitat units</i>	-0.08
	<i>Hedgerow units</i>	0.00
	<i>Watercourse units</i>	0.00
Spatial risk multiplier (SRM) deductions	<i>Area habitat units</i>	0.00
	<i>Hedgerow units</i>	0.00
	<i>Watercourse units</i>	0.00

Table 4: The total net biodiversity unit and net percentage change for the project, including all on-site and off-site interventions and including spatial risk multiplier deductions.

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Area habitat units</i>	-0.08
	<i>Hedgerow units</i>	0.00
	<i>Watercourse units</i>	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Area habitat units</i>	-67.01%
	<i>Hedgerow units</i>	0.00%
	<i>Watercourse units</i>	0.00%
Trading rules satisfied?	No - Check Trading Summaries ▲	

Client Name:	Basement Bakehouse Ltd.	
Date of Completion:	15/06/2026	
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DISCLAIMER

This report considers the instructions and requirements of the client and is not intended for and should not be relied upon by any third party.

In accordance with current good practice guidance, the results contained within this report can be relied on for decision-making purposes without the need to be updated for six months providing there is no significant change in land use or land management in that time.

Interpretations and recommendations contained in this report represent the author's professional opinions. They are based on currently accepted industry practices and personal experience. This is a working document and must be updated if development proposals change, or new information become available.

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INTRODUCTION

ECOassistance have been commissioned by Basement Bakehouse Ltd (Hereafter: the client) to undertake a Biodiversity Net Gain (BNG) assessment at: Bowls Pavilion, Windmill Memorial Gardens, Clarence Place, Gravesend, Kent, DA12 1LB.

An overhead satellite image with indicative red line boundary of the development area (hereafter referred to as: the site) shown within the context of the habitats in the wider area is provided in Figure 1 below.

Figure 1: Overhead satellite image of the red line boundary (indicative) of the site



The site is located in Gravesend, Kent; in the South East region of England. The site is within the Gravesham Borough Council Local Planning Authority (LPA). The grid reference for the approximate centre of the site is: TQ 64988 73428.

The proposed planning application is for:

Conversion of existing building into bakery and coffee shop

This report provides outline recommendations for how best to achieve +10% BNG through development in accordance with standing guidance to meet the statutory requirement and the BNG target set within the local plan.

BNG REQUIREMENTS

Mandatory BNG, as part of the Environment Act (2022), came into place for all minor developments from April 2024. The National Planning Policy Framework (NPPF) states that planning policy should identify and pursue opportunities for securing measurable gains for biodiversity.

The national target for mandatory biodiversity net gain is 10%, although local targets may differ, and local planning strategies should be consulted. For this site, Gravesham Borough Council LPA indicates that a minimum 10% BNG must be achieved.

The current model for assessing BNG (used in this report) is the Statutory Biodiversity Metric Calculation Tool (version 1.0.4).

MITIGATION HIERARCHY

The Statutory Biodiversity Metric Calculation Tool follows the mitigation hierarchy, which is an important principle of ecological good practice. The mitigation hierarchy prioritises retaining habitats and minimising habitat damage; before looking to enhance or recreate habitats on site; before finally enhancing or creating habitats off site. This sequential approach is encouraged by the biodiversity metric because it allows overall biodiversity gains to be achieved more easily through the avoidance of on-site habitat losses, rather than relying solely on the creation of new habitat or the enhancement of existing habitat. It works this way because the metric applies multipliers that are based on the risks inherent in creating or restoring habitat, and which are not applicable when existing habitat is safeguarded.

The Biodiversity Metric includes a rule which mandates that lost habitats must be compensated for on a “like for like” or “like for better” basis. As such, new or restored habitats should aim to achieve a higher distinctiveness and/or condition than those to be lost.

STATUTORY OBLIGATIONS

The use of the biodiversity metric does not negate the projects statutory obligations in relation to protected species and habitats.

RELEVANT LEGISLATION AND PLANNING POLICIES

Relevant legislation implications for this site include:

- The Conservation of Habitats and Species Regulations 2010 (as amended);
- The Wildlife and Countryside Act 1981 (as amended);
- The Countryside and Rights of Way Act 2000;
- The Natural Environment and Rural Communities Act (NERC Act) 2006;
- Environment Act (2022).

Planning policies, both local and national, may affect any proposed development. Relevant planning policies to this development include;

- National Planning Policy Framework;
- Local policies

SITE AIMS AND OBJECTIVES

The aim of the BNG assessment is to:

- Provide a baseline assessment of the habitats on the site using the Statutory Biodiversity Metric Calculation Tool.
- Provide a predicted score based on proposed habitat creation and enhancement using the Statutory Biodiversity Metric Calculation Tool.
- Provide suitable long term management recommendations, for the site, to ensure habitats reach and maintain their desired condition.

CONSTRAINTS AND LIMITATIONS

The area measurements are based on QGIS software and georeferenced drawings of the site block plans or topographical survey drawings as provided by the architect or client. Digital Elevation Models or terrain analysis has not been used to calculate the exact area of slopes within the site.

Values of units being displayed up to two decimal places within the Statutory Biodiversity Metric Calculation Tool may lead to apparent rounding errors within this report. While every effort has been made to ensure accuracy, minor discrepancies may arise when summing or comparing values. These rounding variations are a natural consequence of limiting decimal precision and do not significantly impact the overall calculations or conclusions. Readers should be aware of this when interpreting numerical data, particularly in cases where cumulative totals or differences are involved.

METHODOLOGY

A BNG assessment has been conducted using the free and open-source geographic information system QGIS alongside the Statutory Biodiversity Metric Calculation Tool.

The methodology as set out in the Statutory Biodiversity Metric Calculation Tool User Guide has been followed. The Statutory Biodiversity Metric Calculation Tool converts habitats into 'biodiversity units' which are the 'currency' of the metric.

DESK SEARCH

A desk-based search of the Multi-Agency Geographic Information for the Countryside (MAGIC) governmental website, which provides geographic information in map form, was used to identify local statutory and non-statutory land-based designations.

An aerial map search using freely available resources was undertaken to assess recent and historical land use and help detect any damage to the habitats within and around the site that could affect the condition of baseline habitats.

A search for previous planning applications including ecological survey work at the site was undertaken and included if deemed to be relevant.

Local planning policies, landscape data and Local Nature Recovery Strategies (LNRS) were used to assign the strategic significance to habitats within the site.

BASELINE ASSESSMENT

The BNG assessment is based on habitat data collected during a site survey visit undertaken on 05/06/26 by trained BNG ecologist and professional botanist Edie Burns. The site survey was undertaken in fair weather conditions and during daylight hours.

The baseline assessment is calculated by categorising the habitats on site into the corresponding UK Habitat Classification (UKHab) Version 2.0 and feeding these into the metric. The metric then assigns the habitat distinctiveness.

A strategic significance is also assigned to each habitat type. Strategic significance relates to the spatial location of a habitat parcel and works at a landscape scale. It gives additional value to habitats of strategic importance to that local area.

Biodiversity metric uses habitat condition as one of the measures of habitat quality. The condition assessment measures a habitat parcel against the ecological optimum state for that particular habitat. The biodiversity metric provides a list of assessment criteria for each habitat type. The condition of the habitat is then assessed against these criteria; the more criteria present within the habitat the higher the assessed condition.

CALCULATING UNITS

Biodiversity units are calculated using both the size and quality of a parcel of habitat. The metric uses habitat area (measured in hectares) as its core measurement, except for linear habitats (hedgerows and lines of trees and rivers and streams) where habitat length (measured in kilometres) is used.

To assess the quality of a habitat biodiversity metric scores:

- **Habitat type**, such as woodland or grassland, according to their relative biodiversity value or distinctiveness. Habitats that are scarce or declining typically score highly relative to habitats that are more common and widespread.
- **Habitat condition**, scoring the biodiversity value of the habitat relative to others of the same type.
- **Habitat location and connectivity**. Being 'better' and 'more joined-up' are important facets of habitats that can contribute to halting and reversing biodiversity declines, so the metric also accounts for whether or not the habitat is sited in an area identified, typically in a relevant local strategy or plan, as being of strategic significance for nature.

PRINCIPLES AND RULES OF THE STATUTORY BIODIVERSITY METRIC

PRINCIPLES

The Biodiversity Metric works under the following principles;

- Principle 1: The metric assessment should be completed by a competent person.
- Principle 2: The use of this biodiversity metric does not override existing biodiversity protections, statutory obligations, policy requirements, ecological mitigation hierarchy or any other requirements. This includes consenting or licensing processes, for example woodlands.
- Principle 3: This biodiversity metric should be used in accordance with established good practice guidance and professional codes.
- Principle 4: This biodiversity metric is not a complex or comprehensive ecological model and is not a substitute for expert ecological advice.
- Principle 5: Biodiversity units are a proxy for biodiversity and should be treated as relative values.
- Principle 6: This biodiversity metric is designed to inform decisions in conjunction with locally relevant evidence, expert input, or guidance.
- Principle 7: Habitat interventions need to be realistic and deliverable within a relevant project timeframe.
- Principle 8: Created and enhanced habitats should be, where practical and reasonable, local to any impact and deliver strategically important outcomes for nature conservation.

- Principle 9: This biodiversity metric does not enforce a minimum habitat size ratio for compensation of losses. Proposals should aim to:
 - maintain habitat extent - supporting more, bigger, better and more joined up ecological networks
 - ensure that proposed or retained habitat parcels are of sufficient size for ecological function

RULES

The following rules apply to the Biodiversity Metric;

- Rule 1: The trading rules of this biodiversity metric must be followed.
- Rule 2: 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.
- Rule 3: 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. The tools remove the need for a user to manually calculate the change in biodiversity value. The tool will summarise the results of the calculation and inform a user whether the biodiversity net gain objective has been met.
- Rule 4: In exceptional ecological circumstances, deviation from this biodiversity metric methodology may be permitted by the relevant planning authority.

BASELINE HABITATS

The location and extent of the habitats that are present within the site are shown in Figure 2 below and thereafter described in the subsections that follow.

Figure 2: Existing habitat map



MODIFIED GRASSLAND (G4)

A small parcel of modified grassland is present in the northern corner of the site. The sward supports an average of four species per m², comprising common, nutrient-tolerant grasses and forbs including perennial rye-grass *Lolium perenne*, meadow-grass *Poa* spp., cat's-ear *Hypochaeris radicata*, dandelion *Taraxacum officinale* and daisy *Bellis perennis*. The grassland is characteristic of amenity-type modified grassland with limited structural diversity.

A mobile kiosk is currently stationed on part of this grassland area, resulting in localised compaction and shading beneath the trailer footprint.

Figure 3: Site photos showing the modified grassland habitat northern grassland.



INTRODUCED SHRUB (81)

Introduced shrub planting is present around three sides of the pavilion building, forming a series of ornamental beds of varying density and structure. The planting comprises a mixture of non-native and naturalised species typical of amenity landscaping, including snowberry *Symphoricarpos albus*, box-leaf honeysuckle *Lonicera nitida*, bindweed *Convolvulus* sp., holly *Ilex aquifolium*, ivy *Hedera helix*, bramble *Rubus fruticosus* agg., elder *Sambucus nigra*, hazel *Corylus avellana*, geranium *Geranium* sp., orange daylily *Hemerocallis fulva* and salvia *Salvia* sp.



DEVELOPED LAND; SEALED SURFACE (U1B)

The central part of the site comprises developed land associated with the Bowls Pavilion. This includes the pavilion building together with the adjacent hardstanding, steps and access areas immediately surrounding the structure.

ARTIFICIAL UNVEGETATED, UNSEALED SURFACE (U1C)

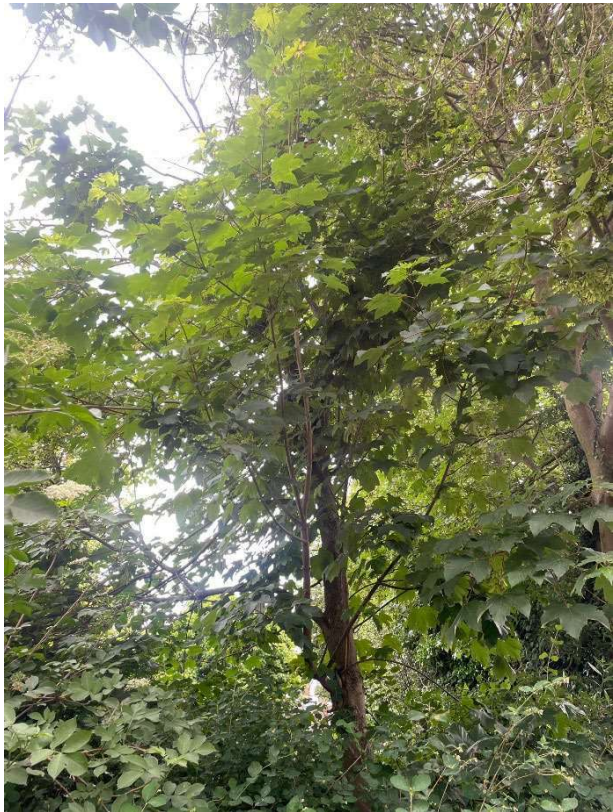
A narrow strip of artificial, unvegetated unsealed surface is present along the southern side of the pavilion building. The area comprises a series of paving slabs set directly onto the ground, with sections covered by a tarpaulin/ground-covering material.

Figure 4: Artificial unvegetated, unsealed surface present along southern boundary



INDIVIDUAL TREES

Four individual trees are present on site. T1 (holm oak *Quercus ilex*, 17 cm DBH), T2 (box *Buxus sempervirens*, 18 cm DBH) and T3 (elder *Sambucus nigra*, 16 cm DBH) are all located along the southern boundary. T4 is a 25cm DBH cherry *Prunus sp.* positioned on the western side of the pavilion.

Tree ID	Species	DBH (cm)	Photo
T1	Holm oak (<i>Quercus ilex</i>)	17	
T2	Box (<i>Buxus sempervirens</i>)	18	