

Dolphin Hotel, Wincanton, Somerset

Ecological Impact Assessment (Bats and Birds)

November 2022

A report on behalf of Hopkins Estates

Ref: 1724B-EcIA-VB

Site Details

Site Name	Dolphin Hotel
Site Location	Wincanton, Somerset
Central OS Grid Reference	ST 7152 2866
Client	Hopkins Estates

Quality Assurance

Report Title	Ecological Impact Assessment (Bats and Birds)
Report Reference	1724B-EcIA-VB
Author	Vicki Baldwin BSc MSc
Checked By	Lindsay Taylor BSc MSc ACIEEM
Approved By	Richard Pash BSc MCIEEM
Revision No.	FINAL
Issue Date	09 November 2022
Summary of Changes	N/A
Revised By	N/A
Approved By	N/A

The content of this report that has been provided by GE Consulting is true, and has been prepared and submitted in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. Its contents are compliant with British Standard BS42020: 2013 Biodiversity Code of Practice for Planning and Development.

This report has been prepared for the exclusive use of the stated client and unless otherwise agreed in writing by GE Consulting, no other party may use, make use of or rely on the contents of the report. No liability is accepted by GE Consulting for any use of this report, other than for the purposes for which it was originally prepared and provided.

GE Consulting has exercised due care in preparing this report. It has not, unless specifically stated, independently verified information provided by others. No other warranty, express or implied, is made in relation to the content of this report and GE Consulting assumes no liability for any loss resulting from errors, omissions or misrepresentation made by others.

Any recommendation, opinion or finding stated in this report is based on circumstances and facts as they existed at the time that GE Consulting undertook the work. Nothing in this report constitutes legal opinion. If legal opinion is required the advice of a qualified legal professional should be secured.

Contents

1	Introduction.....	1
1.1	Context	1
1.2	Purpose	1
2	Methods.....	1
2.1	Extended UK Habitats Classification Survey	1
2.2	Bat Survey	1
2.3	Nesting Bird Survey	2
2.4	Other Protected/ Notable Species	2
2.5	Survey Limitations	2
3	Results.....	2
3.1	Designated Sites.....	2
3.2	Habitats	3
3.3	Fauna	3
3.4	Bat Survey	6
4	Further Survey Work	6
5	Evaluation and Mitigation Recommendations	6
5.1	Designated Sites.....	6
5.2	Habitats	7
5.3	Bats	7
5.4	Nesting Birds	8
6	Biodiversity Net Gain Assessment	8
7	Enhancements	8
8	Conclusions	8
9	References	10

Figures

Figure 1 – Baseline BNG Plan

Figure 2 – Post Development BNG plan

Figure 3 – Bat and Bird Box Plan

Appendices

Appendix 1 - Procedure to Follow if Bats are Discovered During Works

Appendix 2 – Biodiversity Net Gain Assessment

1 INTRODUCTION

This report presents the results of an Ecological Impact Assessment (Bats and Birds) at Dolphin Hotel, Wincanton, Somerset (central OS grid reference: ST 7152 2866) in relation to a detailed planning application for the proposed residential development of the former Co-op, adjacent to the Dolphin Hotel. The proposals involve partial demolition of the warehouse to the rear of the former Co-op, whilst retaining the shop frontage on the high street. 14 new residential units with associated gardens will be developed along with reinstating the retail unit of the former co-op.

The surveys were commissioned by Hopkins Estates.

The area within the application boundary is hereafter referred to as the 'Site'.

1.1 Context

Proposals involve the re-development of the existing Co-Op building into five apartments and nine new residential units to the south. The Dolphin Hotel is not to be developed but as the Co-Op and connecting warehouse building attach to the hotel along the western site boundary, both properties were surveyed.

A site walkover and building inspection was undertaken in order to assess the Site for its potential to support protected or notable species with a particular focus on roosting bats and nesting birds.

1.2 Purpose

This report details the results of a building inspection and aims to:

- 👉 Ascertain whether the proposals will affect protected species, specifically bats and nesting birds;
- 👉 Identify any existing bat roosts within the building or any potential features which may provide roosting opportunities for bats and identify any evidence of nesting birds;
- 👉 Identify key ecological constraints to the proposed development, including the presence of or potential for species other than bats and birds; and
- 👉 Provide recommendations for enhancement opportunities in accordance with relevant planning policy, legislation and other published guidance.

2 METHODS

2.1 Extended UK Habitats Classification Survey

A site walkover was undertaken on 06 September 2022 by Vicki Baldwin BSc MSc when weather conditions were dry with good visibility.

All habitats within the Site were identified, described and mapped during the field survey in accordance with the UK Habitat Classification (UKHab) (Butcher et al. 2020) for area habitats and Biodiversity Metric 3.1 classifications for hedgerows (Panks et al. 2022), with other linear and point features mapped using Phase 1 Habitat Survey symbology (JNCC 2010). Habitat condition was assessed following Biodiversity Metric 3.1 condition assessment criteria (Panks et al. 2022).

2.2 Bat Survey

2.2.1 Building Assessment

The former Co-Op building and the Dolphin Hotel were assessed for their potential to support roosting bats. A detailed inspection was undertaken on 06 September 2022 by Vicki Baldwin BSc MSc, a Level 1

Bat Class Licence holder (Licence number: 2017-27581-CLS-CLS) and Anna Galvin BSc MSc, in accordance with current best practice methodology (Collins 2016).

This involved an external and internal inspection using close focusing binoculars and high-powered torches where appropriate. A search was made for features which could provide suitable roosting spaces for bats, including gaps beneath tiles and flashing, gaps around windows, door frames and pipe work and possible access under eaves, soffits and barge/ fascia boards.

The buildings were then prescribed a category based on their potential to support roosting bats as detailed in **Table 1**.

Table 1: Bat Roost Potential (as detailed in Collins, 2016)

Suitability	Description of bat roosting potential
Negligible	The building is not considered suitable for bats
Low	A structure with one or more potential roost sites that could be used on a sporadic or occasional basis for feeding or solitary day roosting
Moderate	A structure with one or more areas suitable for roosting due to the features size, shelter, protection, conditions and surrounding habitat that could be attractive to bats and potentially support maternity roosts
High	A structure with many areas suitable for roosting with a large number of potential access points obviously suitable for use by larger numbers of bats on a more regular basis. These are normally sheltered locations, subject to low variation in temperature
Roost	Bats and/or evidence of bats found

2.3 Nesting Bird Survey

All buildings and vegetation on site were inspected for evidence of and potential for nesting birds.

2.4 Other Protected/ Notable Species

During the survey work described above, the Site and immediate surroundings were assessed for the presence of and potential for other protected, notable or invasive species which could be impacted by proposals.

2.5 Survey Limitations

Care has been taken to ensure that balanced advice is provided on the information available and collected during the study period (s), and within the resources available for the project. However, the possibility of important ecological features being missed due to survey timings, absence during surveys or the year of the survey, cannot be ruled out. In addition the lack of evidence or records of protected species on Site does not preclude their presence from the Site.

3 RESULTS

3.1 Designated Sites

There are no National Site Network Designations within 10km of the Site and no Statutory Designated sites within 2km of the Site.

3.2 Habitats

The Site comprises the former Co-Op building, which includes the old shop frontage and the flat above, as well as a large single storey warehouse building to the rear. The Dolphin Hotel was also included in the site visit, although this building will not be developed or affected by the proposals.

The High Street bounds the site to the north, with the Dolphin Hotel adjacent to the west of the co-op and other shop buildings to the east. An area of hard standing and a discreet area of buddleia and bramble scrub lie to the south of the warehouse building.

The Dolphin Hotel comprises a two storey hotel building with some of the loft space converted. A small pub garden lies to the rear on the southern aspect of the hotel.

Due to their commonplace nature and lack of distinctiveness, all habitats on Site are considered to be of **negligible** ecological value.

3.3 Fauna

3.3.1 Bats

Desk Study Results

The desk study results returned a number of bat records within 1km of the site. The species recorded included common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Myotis mystacinus*), serotine (*Eptesicus serotinus*), brown long-eared (*Plecotus auratus*), western barbastelle (*Barbastella barbastellus*), whiskered (*Myotis mystacinus*), and grey long-eared (*Plecotus austriacus*). The most recent records were from 2018, when all of these species, apart from serotine, were recorded 578m north of the site.

Building Assessment Results

Photographs of the buildings are provided in **Table 2**.

No evidence of current or historic bat roosting was recorded and roosting opportunities within the buildings are extremely limited with no obvious access/egress points.

The urban context of the Site, high levels of illuminance and limited semi-natural habitats in proximity to the Site further reduce the potential of the buildings to support roosting bats.

As such, the buildings were assessed as offering **negligible bat roosting potential**.

Table 2: Survey Results

Building Ref.	Description of Building/PRFs/Evidence	Photograph	Suitability
Dolphin Hotel	Exterior – A two-storey red brick and rendered brick building with a multi-pitched slate and tiled roof. The roof was in good condition, with no missing or cracked tiles, no lifted ridge tiles and with tight lead flashing. Interior – One loft space above the main hotel building had been converted, but the remaining loft space was inspected. It was well sealed, clean and of sound construction. The roof struts were in good condition and the loft was insulated throughout with fibreglass insulation. The loft was used for storage.	 	Negligible

Co-Op building	Exterior – A two storey, stone building with a single pitched slate roof. The roof was in very good condition, with no missing or cracked tiles, no lifted ridge tiles and with tight lead flashing. The walls and roof were well-sealed with no obvious access into the roof void from the outside. Interior – The single loft space was accessible. It was well sealed, fairly clean and of sound construction. The roof struts were in good condition and the loft was insulated throughout with fibreglass insulation. The loft was used for storage but didn't look to have been disturbed recently.	 	Negligible
Warehouse	Exterior – The warehouse to the rear of the Co-op building is a flat roofed single-story red brick building, which attaches to the Dolphin Hotel along the western aspect. The roof is well sealed from the outside and there is no loft space present. The building was generally in a good state of repair externally and lacked features that could be utilised by roosting bats, such as lifted roof tiles or lifted lead flashing. Interior – The warehouse had been left unused for several years and was in a fairly poor state internally. No evidence of bats or potential roosting features were identified.	 	Negligible

3.3.2 Breeding Birds

A wide variety of bird species were returned within the desk study results. Most notably several records of swift (*Apus apus*) from 2010 to 2014, the closest being within 50m of the site. Other species recorded within the area included starling (*Sturnus vulgaris*), mistle thrush (*Turdus viscivorus*), house sparrow (*Passer domesticus*), green woodpecker (*Picus viridis*), pied wagtail (*Motacilla alba*), redstart (*Phoenicurus phoenicurus*), nuthatch (*Sitta europaea*) and wren (*Troglodytes troglodytes*).

No current or historic evidence of nesting birds was found within the building. There are limited opportunities for bird species to nest on the roof pitches and valleys. In addition, the small amount of vegetation on Site provides very limited nesting opportunities. The Site is considered to be of **negligible ecological value** for nesting birds.

3.3.3 Amphibians

There were no records of great crested newt within the desk study area, but there were records of palmate (*Lissotriton helveticus*) and smooth newt (*Lissotriton vulgaris*) 238m to the south west of the site from 2008. Other amphibians recorded in the area include common toad (*Bufo bufo*) 334m east of the site in 2017. There is no suitable habitat for amphibians within the Site and this specie group is not considered further within the report.

3.3.4 Reptiles

There were very few reptile records returned from the desk study. However, there was a record of slow worm (*Anguis fragilis*) 840m east of site, from 2009. There is no suitable habitat for reptiles within the Site and this specie group is not considered further within the report.

3.3.5 Other species

Five records of hedgehog (*Erinaceus europaeus*) were returned from the desk study, the most recent being in 2018, 591m south west of the site. There were seven records of badger (*Meles meles*), the most recent being in 2017, 667m south of the site. There were also records of otter (*Lutra lutra*) and water vole (*Arvicola amphibius*) within the desk study area, the most recent being in 2022, 600m north west of the site.

Due to the distinct lack of suitable habitat on Site, it is considered that the Site is of **negligible ecological value** for other protected species and they are not considered further within this report.

3.4 Bat Survey

4 FURTHER SURVEY WORK

No further ecological survey work is considered necessary for this application and the results are considered valid for two years (unless local planning authority policy dictates otherwise); however any changes to the proposals or if any significant amount of time has passed since the date of this report, a re-appraisal may be required.

5 EVALUATION AND MITIGATION RECOMMENDATIONS

5.1 Designated Sites

There are no designated sites within the search areas of the Site and due to location and the small scale of the proposals of the Site, it is anticipated that there will be no impacts on designated sites further afield.

5.2 Habitats

It is anticipated that only the former co-op and warehouse building, small area of vegetated garden and hardstanding on site will be affected by the planned development, and little to no surrounding habitat or the Dolphin Hotel will be impacted. No specific mitigation is required as a result, however it is recommended that should any landscaping proposals be made alongside the proposed development, they should include tree planting and/or areas of shrubs/ wildflower grass that include native flowering and fruiting species to increase foraging and nesting opportunities for a range of species.

It is also recommended that bat and bird boxes be incorporated into the design of the development. This is to increase the opportunities for birds to nest and bats to roost in the in the surrounding area. These can be integrally built into the brickwork of the new dwellings or externally fixed retrospectively.

We recommend integral boxes as they are more permanent and self-cleaning such as the Habibat box <http://www.habibat.co.uk/> or alternatively bat and bird boxes available from <http://www.birdbrickhouses.co.uk>. the boxes are either faced with or made from the build material making them less visually intrusive than an externally mounted box. A good location for bat boxes is at the apex of a gable end with a southerly aspect. Bird boxes should not be mounted on southerly aspects as they can become too hot during the summer months. **Figure 3** indicates proposed locations for these enhancements.

Due to the number of swift records in the area, it is recommended that swift bricks are included in the enhancements plan also. They should be installed as high as possible above the ground ensuring access is unobstructed for birds entering and leaving. They should be located under overhanging eaves or rooves, preferably north or east facing. These can also be built to match rendering or building materials, to be as discreet as possible.

5.3 Bats

All species of bat and their breeding sites or resting places (roosts) are protected under Regulation 41 of The Conservation of Habitats and Species Regulations 2017 and Section 5 of the Wildlife and Countryside Act 1981 (as amended). It is an offence for anyone to:

-  deliberately capture, kill or injure a bat;
-  intentionally or recklessly to disturb a bat or group of bats in a roost;
-  damage or destroy any place used by bats for shelter, (whether they are present at the time or not);
-  intentionally or recklessly obstruct access to a bat roost;
-  possess, or offer a bat (dead or alive) or part of a bat for sale or exchange.

It is considered highly unlikely that bats will be discovered during works, however, prior to commencement, contractors should be made aware of the procedure to follow if a bat is discovered or suspected during works, as outlined in **Appendix 1**.

Whilst the Site may be used for occasional commuting and foraging for a low number of common and light tolerant species such as common pipistrelle, given its size and location it was not considered likely to provide a particularly important foraging area or commuting route for bats.

Lighting during construction and operation has the potential to prevent/ reduce bat numbers commuting and foraging within and surrounding the Site during the active bat season, and as such the use of lighting should be limited and designed to avoid illumination of boundaries.

5.4 Nesting Birds

All wild bird species, their eggs and nests are protected by law. The Wildlife & Countryside Act 1981 (as amended) makes it an offence to:

-  Intentionally kill, injure or take wild birds;
-  Intentionally take, damage or destroy a wild bird's nest while it's being used or built;
-  Intentionally take or destroy a wild bird's egg;
-  Possess, control or transport live or dead wild birds, or parts of them, or their eggs;
-  Sell wild birds or put them on display for sale; and
-  Use prohibited methods to kill or take wild birds.

The proposed scrub removal should take place outside of the nesting bird season (March to August inclusive). If this is not achievable, a pre-works check by a suitably qualified ecologist should be undertaken. Any active nest must be retained in situ and buffered by a 5m exclusion zone until all chicks have fledged.

No impacts on nesting birds are predicted and no specific mitigation is required however enhancements have been provided below in line with planning policy.

6 BIODIVERSITY NET GAIN ASSESSMENT

The Site baseline comprises 0.12 habitat units and 0 hedgerow/ linear units.

The proposed development will comprise 0.14 habitat units and 0 hedgerow/ linear units, resulting in a net gain of 0.02 habitat units (16.55%).

Methods and assumptions are shown in **Appendix 2**.

Figure 1 shows the Baseline BNG habitats and **Figure 2** shows the Post Development BNG habitats.

The metric shows an increase in the overall biodiversity of the Site, in accordance with NPPF.

In addition, the following enhancements for protected species are recommended:

7 ENHANCEMENTS

In line with national and local planning policy it is recommended that ecological enhancements are included in the design of the development. This may include a least one bird box and one bat box. These could be integrally built into the brickwork or externally fixed retrospectively. We recommend integral boxes as they are more permanent and self-cleaning such as the Habibat box <http://www.habibat.co.uk/> or alternatively bat and bird boxes available from <http://www.birdbrickhouses.co.uk/>. These types of boxes are either faced with or made from the build material making them less visually intrusive than an externally mounted box. A good location for bat boxes is at the apex of a gable end with a southerly aspect. Bird boxes should not be mounted on southerly aspects as they can become too hot in the summer.

Figure 3 shows appropriate locations for bat and bird boxes to be installed.

8 CONCLUSIONS

In summary the Site was considered to be of negligible ecological interest and no impacts to protected and notable species are predicted as a result of the proposals. Nonetheless, enhancement measures have

been recommended with the aim of providing a net biodiversity gain, contributing to the aims of National Planning Policy Framework and local policy.

9 REFERENCES

Bat Conservation Trust (2014) *Artificial lighting and wildlife. Interim Guidance: Recommendations to help minimise the impact artificial lighting*. Available at http://www.bats.org.uk/pages/bats_and_lighting.html

Bat Conservation Trust/ Institute of Lighting Professional (2018) *Guidance Note 08/18 - Bats and Artificial Lighting in the UK*. Bats and the Built Environment Series.

BSI (2013) *BS42020: 2013 Biodiversity. Code of practice for planning and development*. British Standards Institution, London, UK.

CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Chartered Institute of Ecology and Environmental Management, Winchester.

Collins, J. (ed.) (2016) *Bat Survey for Professional Ecologists: Good Practice Guidelines (3rd edition)*. The Bat Conservation Trust, London.

Eaton M., Aebischer N., Brown A., Hearn R., Lock L., Musgrove A., Noble D., Stroud D. and Gregory R. (2015) *Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man*. British Birds 108: 708-746.

Joint Nature Conservation Committee (2010) *Handbook for Phase 1 Habitat Survey - a Technique for Environmental Audit*. Reprinted by JNCC, Peterborough.

Stone, E.L. (2013) Bats and lighting: Overview of current evidence and mitigation guidance.

Wray S. Wells D., Long E. & Mitchell-Jones T (2010) *Valuing Bats in Ecological Impact Assessment*, In Practice **70**: 23-25.



Legend:

-  Site Boundary
-  Vegetated garden
-  Hard standing and car park
-  Buildings

0 8 16 24 32 m

Imagery (2022) CNES / Airbus, Getmapping plc, Infoterra Ltd & Bluesky, Maxar Technologies, Map data (c)2022 Google

Figure 1:
Baseline BNG Plan

Project:
Dolphin Hotel, Wincanton

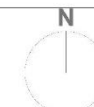
Client:
Grassroots Planning

Date:
4/11/2022

Drawn:
VB

Ref:
1724B-ECIA-F1

Revision:
-







Appendix 1 - Procedure to Follow if Bats are Discovered During Works

- 🦇 If at any point during the works bats are discovered, contractors should stop work immediately and telephone GE Consulting on 01647 253 652;
- 🦇 GE Consulting will either provide a licensed bat worker to the site or provide a member of staff who will liaise directly with Natural England. Actions will then be taken following advice given by Natural England. This may include removal of bats, but only where direct written or verbal permission is gained from Natural England;
- 🦇 Only when Natural England is satisfied that the risk to bats is ceased will works recommence.
- 🦇 Should it transpire that the operation being carried out is of more risk to bats than was originally thought, then it is likely that works will only be able to proceed under a development licence from Natural England;
- 🦇 If a bat is found under a tile or any other aperture, works will stop immediately (as above). If the bat does not voluntarily fly out, then the aperture will be carefully covered over to protect the bat(s) from the elements, leaving a small gap for the bat to escape voluntarily. Further advice will then be sought from Natural England (as above). Any covering should be free from grease or other contaminants, and should not be fibreglass-based materials;
- 🦇 Avoid handling bats. Bats should not be handled with bare hands. If a decision is made to handle a bat (e.g. for good reason in the case of an injured bat or a bat in 'harm's way') then gloves must be worn to avoid being bitten. Any injured bats could be placed in a secure ventilated box (e.g. cardboard box) by the contractor for the bat's protection whilst awaiting the arrival of the bat worker;
- 🦇 If during the course of works anyone is bitten by a bat then the area of the bite should be washed immediately with soap and water and medical advice sought.

LEGISLATION

All species of bat and their breeding sites or resting places (roosts) are protected under Regulation 41 of The Conservation of Habitats and Species Regulations 2017 and Section 5 of the Wildlife and Countryside Act 1981 (as amended). It is an offence for anyone to:

- 🦇 Deliberately capture, kill or injure a bat;
- 🦇 intentionally or recklessly to disturb a bat or group of bats in a roost;
- 🦇 damage or destroy any place used by bats for shelter, (whether they are present at the time or not);
- 🦇 intentionally or recklessly obstruct access to a bat roost;
- 🦇 possess, or offer a bat (dead or alive) or part of a bat for sale or exchange.

HOW TO RECOGNISE A BAT

- 🦇 Small, normally around the size of your thumb, but some species are larger;
- 🦇 Bats in flight look bigger. Their wingspan can be up to 40cm;
- 🦇 Brown or grey fur;
- 🦇 Wings are leathery/skin like. Wings are folded close to body when bats are roosting.

Bat droppings are small (c.0.5cm, but variable depending on species) and either black or brown. Bat droppings are similar in size and shape to mouse or rat droppings. The droppings consist of insect remains and crumble if crushed. Mouse and rat droppings do NOT crumble when crushed.

Photographs of a common pipistrelle bat and bat droppings.



Appendix 2 – Biodiversity Net Gain Assessment

Site Survey and Condition Assessment

The Site was surveyed by Vicki Baldwin BSc MSc on 06 September 2022, comprising an Extended Phase 1 Habitat Survey in accordance with the Joint Nature Conservation Committee's survey methodology (JNCC 2010)/ UK Habitat Classification (UKHab) Survey (Butcher et al. 2020) and condition assessment following the criteria

Biodiversity Metric Methodology

The Site was divided up into distinct habitat 'parcels' and linear features based on UKHab/ Biodiversity Metric 3.1 classifications for hedgerows and rivers & streams and measured accordingly using the QGIS mapping tool.

Primary UK Habitat Classifications have been mapped to a minimum mapping unit (MMU) of 10m². Such habitats are only included as a habitat within their own right where they exceed the MMU, otherwise they are considered a feature of the primary habitat and considered when assessing the BNG Habitat condition.

Individual trees that do not form part of a linear feature are indicated using Phase 1 Habitat symbology for scattered trees and superimposed over the UK Habitat Classification area habitats. Their area has been calculated and included within the Metric as per the BNG 3.1 guidelines.

The area of each habitat to be created, retained, and/or enhanced was entered into the Metric. These were then each given an appropriate target condition, connectivity score and strategic significance score.

Corresponding maps are shown in **Figures 1 and 2**.

Strategic Significance

The strategic significance value is produced from undertaking a search for LPA biodiversity and green infrastructure strategies that could affect the development. Due to the Site not being located within an area that's has formerly been identified in a local strategy, all habitats were considered to have **Low** strategic significance.

Rules

In order to ensure the proper use of the Metric and to understand the intended outputs, the following Rules have been adhered to as detailed in the Natural England 'Biodiversity Metric 3.1 – User Guide' (Panks et al., 2022):

-  **Rule 1** – Where the metric is used to measure change, biodiversity unit values need to be calculated prior to the intervention and post-intervention for all parcels of land/linear features affected;
-  **Rule 2** – Compensation for habitat losses can be provided by creating new habitat, by restoring or enhancing existing habitats, or by accelerating successional processes. Measures to enhance existing habitats must provide a significant and demonstrable uplift in distinctiveness and/or condition to record additional biodiversity units;
-  **Rule 3** – 'Trading down' must be avoided. Losses of habitat are to be compensated for on a 'like for like' or 'like for better' basis. New or restored habitats should aim to achieve a higher distinctiveness and/or

condition than those lost. Losses of irreplaceable or very high distinctiveness habitat cannot adequately be accounted for through the metric;

- 👉 **Rule 4** – Biodiversity unit values generated by biodiversity metric 3.1 are unique to this metric and cannot be compared to unit outputs from versions 3.0, 2.0, the original Defra metric, or any other biodiversity metric. Furthermore, the three types of biodiversity units generated by this metric (for area, hedgerow and river habitats) are unique and cannot be summed, traded or converted;
- 👉 **Rule 5** – It is not the area/ length of habitat created that determines whether ecological equivalence or better has been achieved but the net change in biodiversity units. Risks associated with creating or enhancing habitats mean that it may be necessary to create or enhance a larger area of habitat than that lost, to fully compensate for impacts on biodiversity;
- 👉 **Rule 6** – Deviations from the published methodology of biodiversity metric 3.1 need to be ecologically justified and agreed with relevant decision makers. While the methodology is expected to be suitable for the majority of circumstances it is recognised that there may be exceptions. Any local or project-specific adaptations of the metric must be transparent and fully justified.

Assumptions and Limitations

The following assumptions were made to complete the calculations:

- 👉 0.006ha of Modified grassland in moderate condition;
- 👉 New trees assumed to comprise 5 small trees in moderate condition.

Headline Results

As demonstrated in **Table 3.1** below, the BNG assessment predicts that with the onsite measures implemented, the development will deliver a **net gain** for biodiversity. Corresponding maps are shown in **Figures 1 and 2**

Table 3.1: Summary of BNG Metric Assessment

Unit Type	Onsite Baseline Units	Onsite Post-development Units	Net Change	Unit	% Change
Habitat	0.12	0.14	+ 0.02		+ 16.55%

