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Wildlife Sensitive Lighting Strategy

Survey site:
Huntingdon Premier Inn, A1, Brampton, Huntingdon, PE28 4NQ

Client:
Whitbread Group PLC

Report date:
17th June 2025

Project:
This report is prepared to discharge Condition 6 of planning application 24/01132/FUL with Huntingdonshire District Council. The proposal is described as: *'Extension to existing hotel to provide additional bedrooms together with alterations to the car park and all associated works.'*

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Guidelines

This assessment has been designed to meet:

- British Standard 42020 (2013) 'Biodiversity – Code of Practice for Planning and Development'.

Proportionality

> The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.
>
> This approach is enshrined in Government planning guidance, for example, paragraph 174 of the National Planning Policy Framework for England.
>
> (BS 42020, 2013)

In consequence of the scale and intensity of the proposed development, this plan-led report is considered adequate and proportionate. It communicates all relevant information necessary to determine a planning application or support the recommendations for further surveys.

Version control			
Status	**Issue**	**Name**	**Date**
Final	1.0	Laurence Wills ACIEEM, BSc (Hons), Senior Ecologist	17/06/2025

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Ltd was commissioned by Whitbread Group PLC to produce a Wildlife Sensitive Lighting Strategy for the proposed development at Huntingdon Premier Inn, A1, Brampton, Huntingdon, PE28 4NQ (hereafter referred to as 'the site').

The site has previously been subject to the following ecological assessments that are relevant to this report:

- **BERS Report** - Premier Inn, PE28 4NQ – Final (Arbtech Consulting, 2024).
- **PEA-PRA** - Premier Inn [HUNTINGDON] - V4 -27-03-2025 (Arbtech Consulting, 2025a).
- **LEMP** - Huntingdon Premier Inn, PE28 4NQ (Arbtech Consulting, 2025b).

1.2 Project Description

The planning application pertaining to the site (24/01132/FUL with Huntingdonshire District Council) describes the proposed development as '*Extension to existing hotel to provide additional bedrooms together with alterations to the car park and all associated works*' (hereafter referred to as 'the proposed development'). A proposed development plan is provided in **Appendix A.**

1.3 Site Location

The survey site is located at National Grid Reference TL 19172 71855, encompassing an area of approximately 1.2 hectares. The land primarily consists of developed features, including sealed surfaces such as two buildings, paved roads, parking areas, and hardstanding. Additionally, there are sections of modified grassland, ornamental shrubbery, linear tree formations, small woodland patches, and areas of scrub. The site is bordered on all sides by significant roadways, including the A14 and A1, which serve as prominent features of the immediate landscape. Within a 2km radius, there are around 15 waterbodies that hold potential ecological value for protected species. However, the surrounding road network may restrict movement between the site and these water features, acting as a physical barrier for certain species. Beyond these waterbodies, the broader landscape includes several notable habitats: lowland meadows approximately 50m to the north, deciduous woodland 440m to the east, ancient woodland 1.2km to the south, semi-improved grassland 1.8km to the southwest, and coastal and floodplain grazing marsh about 1.8km to the southeast. These features enhance the ecological context of the area, although major roads may limit connectivity between the site and these surrounding habitats. A site location plan is provided in **Appendix B**.

1.4 Scope of this Report

Following the submission of planning application 24/01132/FUL, planning was conditionally approved. The planning decision contained a number of planning conditions relating to ecology. Relevant to this report, planning Condition 6 states:

'No development above slab level shall commence until a Low Impact Lighting Strategy as set out within the submitted Bat Emergence and Re-Entry Surveys (BERS) prepared by Arbtech dated 17th August 2024, received by the Local Planning Authority on 30th September 2024; has been submitted to and approved in writing by, the local planning authority. The development will be implemented in accordance with the approved details.

Reason: To ensure that before any development commences ecological interests will be fully conserved and enhanced in accordance with Policy LP30 of the Huntingdonshire Local Plan to 2036.'

2.0 Ecological Baseline Conditions Relevant to This Report

The baseline ecological conditions of relevance to this report were determined as a result of the PEA/PRA and BERS surveys/reports undertaken for the site (Arbtech Consulting Ltd, 2024; 2025).

2.1 Summary of Assessed Impacts of the Proposed Development on Bats

Table 1: Summary of impacts relevant to this report as a result of the BERS surveys.

Feature	***Foreseen impacts***	***Mitigation*** *Measures required to adhere to guidance, legislation and planning policies.*
Bats	Following Bat Emergence and Re-entry Surveys (BERS) in 2024, the existing building on site has been confirmed to support the following bat roosts; **one common pipistrelle** (*Pipistrellus pipistrellus*) day roost located under the eaves on the northwestern elevation, **one common pipistrelle** day roost located under a hanging tile on the western elevation of the connective corridor, and **one soprano pipistrelle** (*Pipistrellus pygmaeus*) day roost located beneath the eaves on the western extension (Arbtech Consulting, 2024). As a result of repair works and the proposed works within the approved application, the roosts will be lost, and replacement roosts will be included within the new extension (details provided in accompanying BERS report). The increase in artificial lighting as a result of the proposed plans have the potential to adversely effect the replacement roost locations, if not mitigated for. It was also noted during the BERS surveys that the habitats to the west of the site (pocket of woodland) was repeatedly used by commuting bats and was the destination of choice for the emerging bats that were recorded roosting within the building on site. Additional artificial lighting within the vicinity of this habitat may cause adverse impacts for the local bat population, as well as the roosting bats on site.	In order to reduce impacts of increased artificial lighting to an acceptable level, a Wildlife Sensitive Lighting Strategy has been provided to limit the impacts of light pollution on the site for bat roosts and adjacent habitats that may be utilised by foraging and commuting bats. Any lighting to be installed in association with the proposed development should be installed in line with current guidance issued by the Bat Conservation Trust & Institute of Lighting Professionals, Guidance Note GN 08/23: Bats and Artificial Lighting at Night. (BCT & ILP 2023).

2.2 Artificial Lighting Baseline and Scope for Mitigation

The site is situated within an isolated location surrounded by well used urban infrastructure. As a result, the pre-development conditions at the site are likely to be subject to signficant levels of artificial light disturbance resulting from the infrastructure lighting and light pollution associated with the surrounding roads. However, the adjacent woodland to the west and mature trees to the south are likely to be subject to limited levels of artifical light pollution and subsequently provide dark corridors for bats in an otherwise urban landscape. Artifical lighting

proposed to be installed in association with the approved development should therefore focus on limiting artifical light pollution over these habitats in order to retain the dark corridor associated with the woodland.

3.0 Wildlife Sensitive Lighting Strategy

The Wildlife Sensitive Lighting Strategy to be implemented at the site is detailed within **Table 2** below. Key elements of the lighting strategy are illustrated on the plan in **Appendix C.**

Table 2: Wildlife Sensitive Lighting Strategy Prescriptions

Prescription	Specification
Mitigating impacts of external lighting	***Roosting Bats*** No external lighting will be installed within 5m of the permanent bat roosting locations proposed within the BERS report and referenced within the Bat Mitigation Class Licence (BMCL). This is to ensure that the roosting features can be discovered and utilised by the local bat population. ***General External Lighting Requirements*** External lighting associated with the proposed extension will be limited to low-lux level lighting fixtures with zero upward light output. Only essential lighting will be installed on the external areas of the building to prevent light spill into adjacent ecologically sensitive habitats. These include offsite mature trees to the south and a pocket of woodland to the west, both of which are within 2–10 metres of the development and known to be used by bats for commuting and foraging. It is noted that the south and west aspects face areas of limited existing artificial light. Therefore, reducing new lighting on these aspects will avoid any significant increase in ambient lighting levels and preserve dark corridor functions. Lighting to the northeast will face away from bat-sensitive habitats and be contained within landscaped amenity space. All external lighting will be installed and managed in accordance with current guidance issued by the Bat Conservation Trust and the Institution of Lighting Professionals: Guidance Note GN 08/23 – Bats and Artificial Lighting at Night (BCT & ILP, 2023). The following strategy applies lighting prescriptions from that guidance to limit impacts on bats and preserve ecological function across the site and surrounding habitats. ***Key Light Spill Avoidance Zones*** Artificial light spill will be specifically avoided over the following: • The woodland habitat located approx. 10m to the west of the extension; • The mature treeline immediately south of the development footprint; • New ecological enhancement features, including permanent bat roosting structures installed within the extension on the south and/or southwest elevations. ***Lighting Design Prescriptions*** To minimise ecological impact in line with GN 08/23 guidance, the following lighting prescriptions will apply: <u>Operating time and control:</u> • External lighting will be operated on a part-night basis, with automatic shut-off between 23:00 and 06:00.

	• Where feasible, lighting will be controlled via manual switching or central timers, and motion sensors will not be used to avoid unintended activation during sensitive nocturnal periods. <u>Light spill control:</u> • Only luminaires with a zero upward lighting ratio will be used. • All fittings will be downward-directed and fitted with rear shields or hoods to prevent spill toward the west or south boundaries. • Vertical and horizontal lux levels will not exceed 0.4 lux and 0.2 lux, respectively, at the habitat interface. <u>Light type and spectral properties:</u> • Warm-white LED lamps (≤2700K) will be used to minimise blue light content and reduce disruption to nocturnal species. • No lighting with UV components or high-blue spectrum emissions will be installed. <u>Illuminance:</u> • Lighting within the landscaped area will be restricted to an average of ≤3 lux, with no more than 0.4 lux reaching beyond the hard landscaping. • Bollards or low-level shielded luminaires will be used if pathway lighting is required, installed with appropriate spacing to limit spread.
Mitigating impacts of internal Lighting	***Use of Ultraviolet (UV) eliminating window film*** In order to retain pre-development light levels as best possible over habitats within the west and south, the windows on the new proposed extension will be fitted with a clear Ultraviolet (UV) protection window film. This glazing treatment is fully clear and does not alter the appearance of glass whilst rejecting most (up to 99%) of UV light. Bats are particularly sensitive to UV light (BCT & ILP 2023); as such, limiting UV light spill from internal light sources will contribute to limiting impacts of artificial lighting on bats using habitats adjacent western and southern boundaries. The following UV protection window film (or similar) is considered suitable for the site: https://www.windowfilm.co.uk/buy-online/window-film-by-the-metre/uv-protection/clear-uv-window-film ***New Internal light fittings*** Impacts of artificial light spill resulting from newly fitted internal lighting will be mitigated by positioning new fixtures in line with recommendations within current guidance (BCT & ILP 2023). Specifically, in order to limit light spill through windows, internal lighting will be recessed into the ceiling and set back a minimum of 1m from all windows as to limit horizontal light spill. A schematic representation of the effect of this lighting prescription is illustrated on **Figure 1** below.

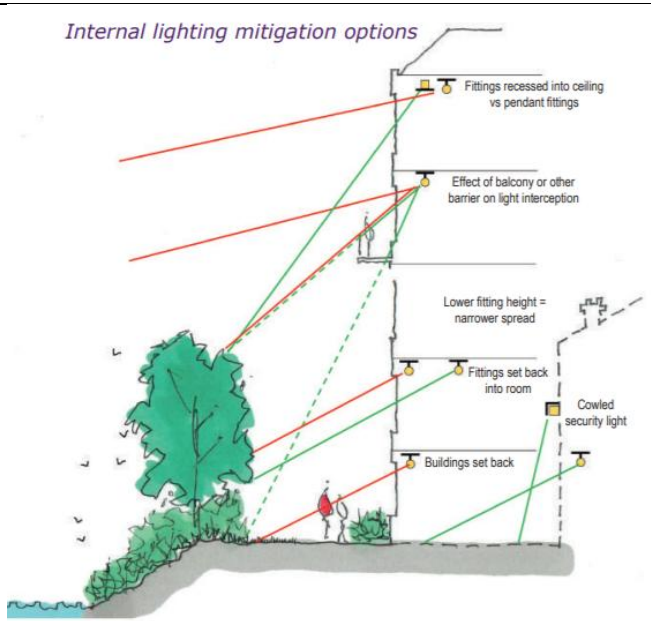
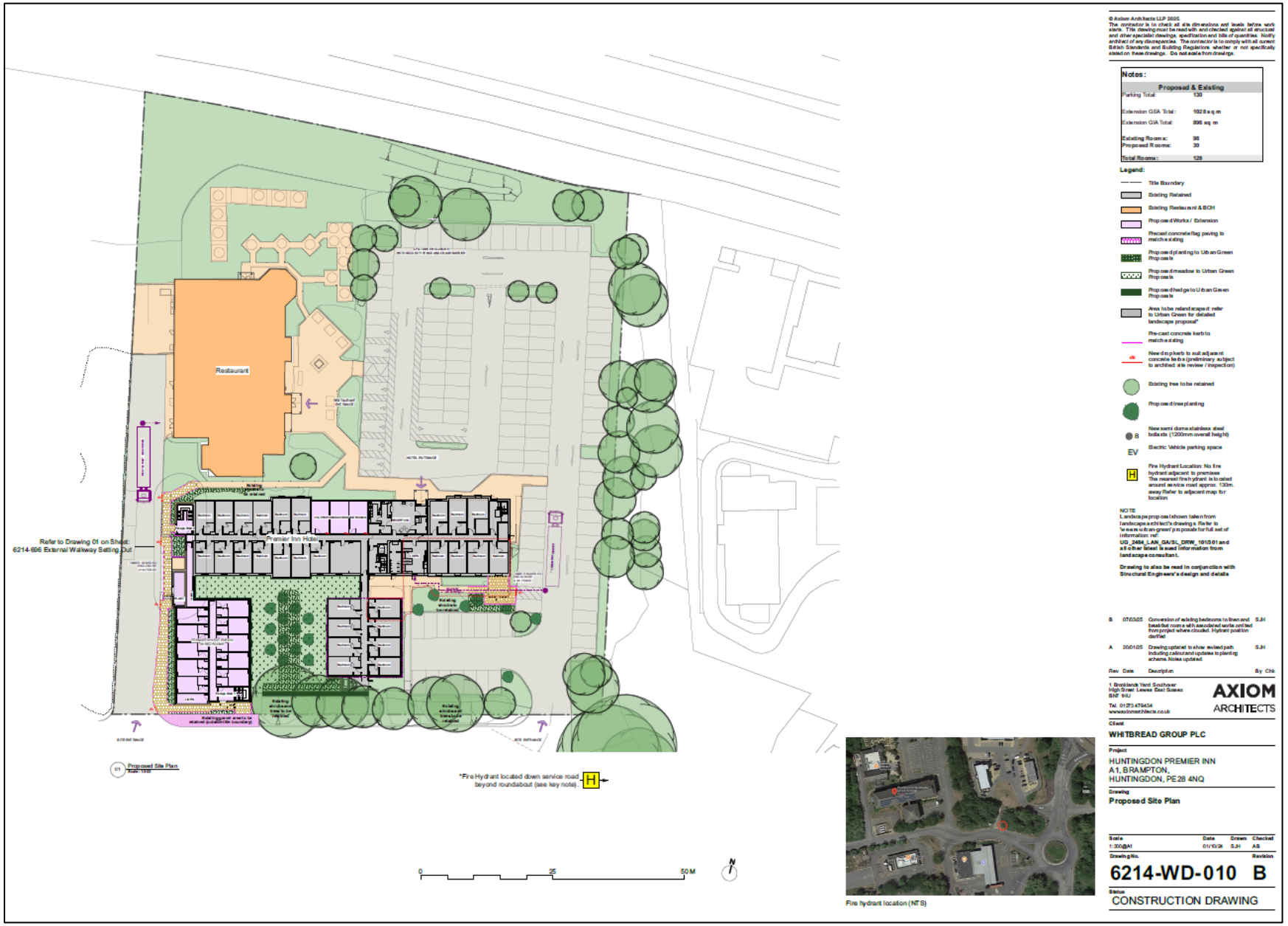


Figure 1: Internal Lighting mitigation options. Image taken from Guidance Note 08/23: Bats and Artificial Lighting at Night (BCT & ILP 2023).

4.0 Bibliography

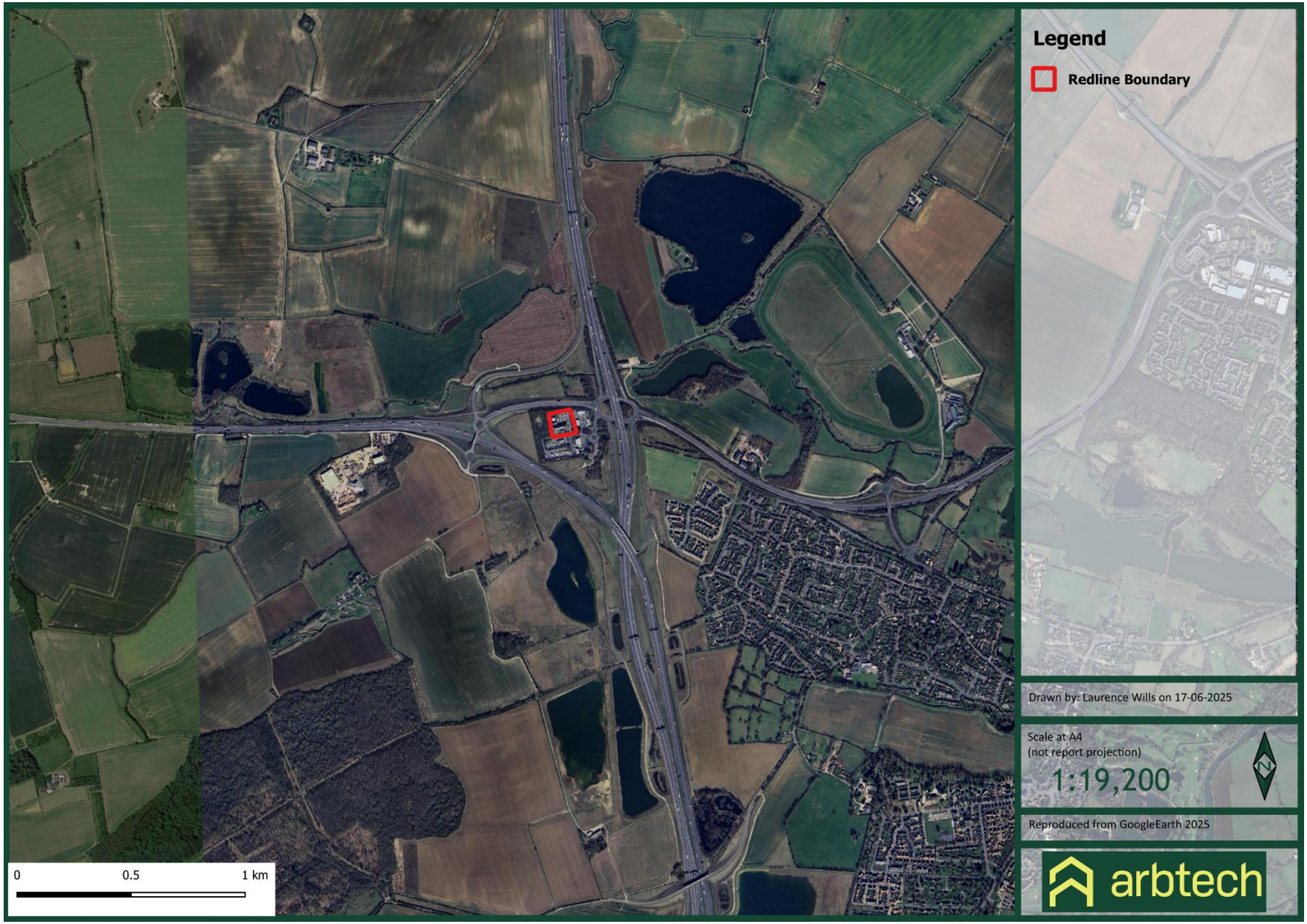
- Arbtech Consulting Ltd. (2024) BERS Report - Premier Inn, PE28 4NQ – Final.
- Arbtech Consulting Ltd. (2025a) PEA - PRA - Premier Inn [HUNTINGDON] - V4 -27-03-2025.
- Arbtech Consulting Ltd. (2025b) LEMP - Huntingdon Premier Inn, PE28 4NQ.
- British Standards Institute. (2013). BS 42020, Biodiversity – Code of practice for planning and development. http://www.eoebiodiversity.org/pdfs/BS42020.pdf
- British Standards Institute. (2013). BS 42020, Biodiversity – Code of practice for planning and development (2013) http://www.bsigroup.com/LocalFiles/en-GB/biodiversity/BS-42020-Smart-Guide.pdf
- Chartered Institute of Ecology and Environmental Management. (2024). Guidelines for ecological impact assessment in the UK and Ireland: Terrestrial, freshwater, coastal and marine (Version 1.3, September 2024). Winchester: CIEEM. Retrieved from https://www.cieem.net/wp-content/uploads/2018/08/EcIA-Guidelines-v1.3-Sept-2024.pdf
- Chartered Institute of Ecology and Environmental Management. (2017). Guidelines for preliminary ecological appraisal (2nd ed.). Winchester: CIEEM. Retrieved from https://cieem.net/wp-content/uploads/2019/02/Guidelines-for-Preliminary-Ecological-Appraisal-Jan-2018.pdf
- Google Earth (2025).
- HMSO: Wildlife and Countryside Act 1981 (as amended) http://jncc.defra.gov.uk/page-1377
- HMSO: Countryside & Rights of Way Act (2000) http://jncc.defra.gov.uk/page-1378
- HMSO: Natural Environmental and Rural Communities Act (2006) http://www.legislation.gov.uk/ukpga/2006/16/contents
- HMSO: The Conservation of Habitats and Species Regulations (2010) http://www.legislation.gov.uk/uksi/2010/490/contents/made
- Huntingdonshire District Council. (2019). *Huntingdonshire Local Plan to 2036.* Retrieved from Huntingdonshire District Council website.
- Bat Conservation Trust & Institute of Lighting Professionals (2023). *Guidance Note GN 08/23: Bats and Artificial Lighting at Night.*
- Government Department for Levelling up, Housing, and Communities. (2021). National Planning Policy Framework. https://www.gov.uk/government/publications/national-planning-policy-framework--2

Appendix A: Approved plans

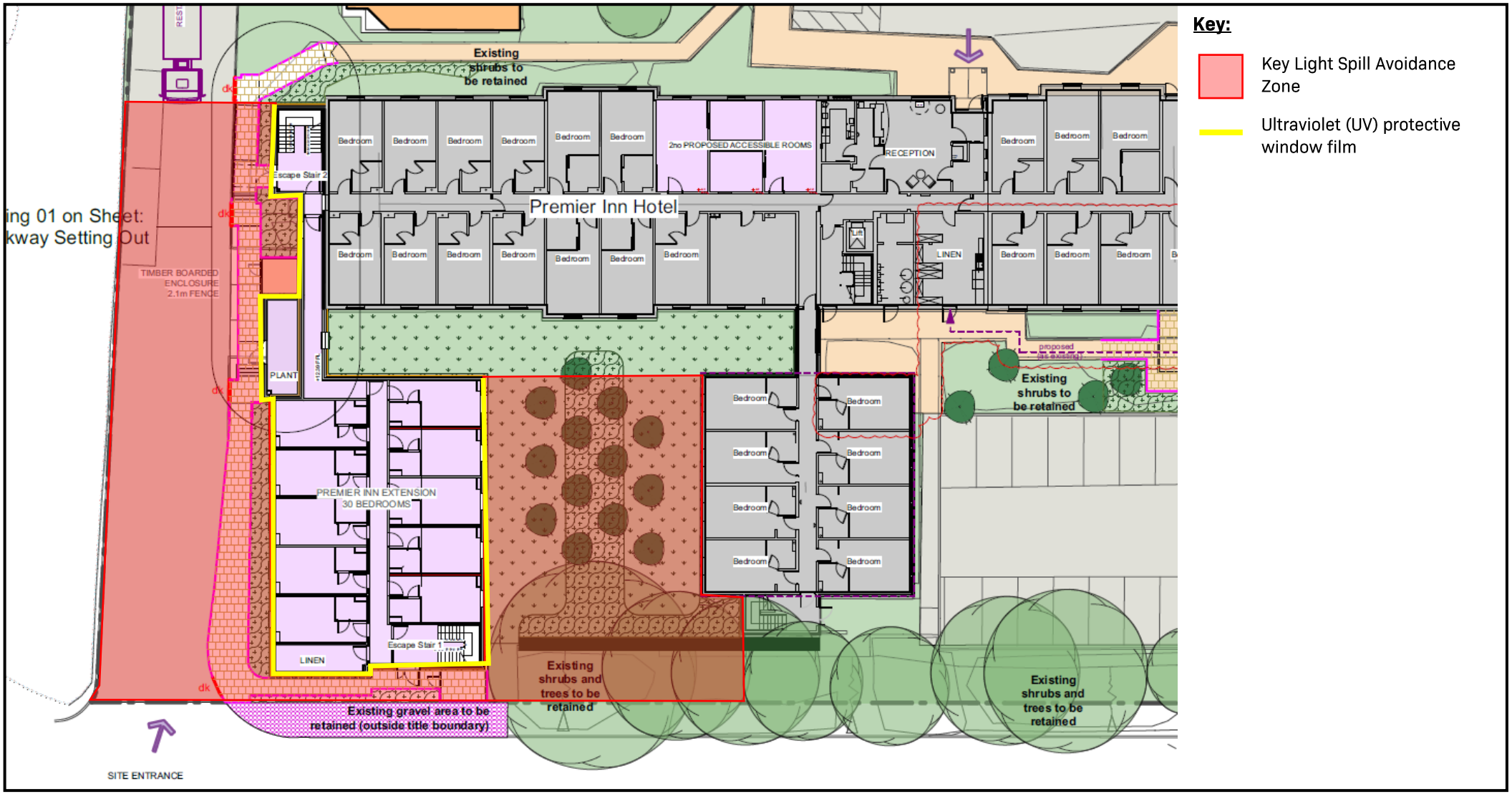


Fire hydrant location (NTS)

Appendix B: Location Plan



Appendix C: Lighting Mitigation – Key Areas (Internal/External)



Appendix D: Legislation and Planning Policy Related to Bats

LEGAL PROTECTION

The ***Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*** came into force when Britain left the European Union on 31st January 2020. It covered amendments relevant to this survey to:

Wildlife and Countryside Act 1981: England and Wales (x1 amendment)

Conservation of Habitats and Species Regulations 2017 (x29 amendments)

All species of bat are fully protected under ***The Conservation of Habitats and Species Regulations 2017*** (amended by the ***Conservation of Habitats and Species Regulations (amendment) (EU Exit) Regulations 2019*** which continue the same provision for European protected species, licensing requirements and protected sites after the UK leaves the EU) through their inclusion on Schedule 2.

Regulation 43: Protection of certain wild animals - offences

(1) A person is guilty of an offence if they:

(a) Deliberately captures, injures or kills any wild animal of a European protected species,

(b) Deliberately disturbs wild animals of any such species,

(c) Deliberately takes or destroys the eggs of such an animal, or

(d) Damages or destroys a breeding site or resting place of such an animal,

(2) For the purposes of paragraph (1) (b), disturbance of animals includes in particular any disturbance which is likely—

(a) To impair their ability:

(i) To survive, to breed or reproduce, or to rear or nurture their young; or

(ii) In the case of animals of a hibernating or migratory species, to hibernate or migrate; or

(b) To affect significantly the local distribution or abundance of the species to which they belong.

Bats are also protected under the ***Wildlife and Countryside Act 1981 (as amended)*** through their inclusion on ***Schedule 5***. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale

National Planning Policy Framework 2021

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as species of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; measurable gains in biodiversity in and around developments are incorporated; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity'. This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

Barnet's Local Plan: Core Strategy 2012

Barnet's Local Plan is the key document outlining the long-term spatial vision for Borough and applies to the location of the site. The Local Plan includes policies which relate to biodiversity and nature conservation which are relevant to this report. Such policies are detailed below:

Policy CS7: *Enhancing and Protecting Barnet's Open Spaces*

"In order to maximise the benefits that open spaces can deliver and create a greener Barnet we will work with our partners to improve Barnet's Green Infrastructure. We will create a greener Barnet by:

- *protecting open spaces, including Green Belt and Metropolitan Open Land;*
- *enhancing open spaces, ensuring positive management of Green Belt and Metropolitan Open Land to provide improvements in overall quality and accessibility;*
- *ensuring that the character of green spaces of historic significance is protected;*
- *meeting increased demand for access to open space and opportunities for physical activity, by tackling deficiencies and under provision through:*
    - *I. securing additional on-site open space or other open space improvements in the identified growth areas including 8 ha of new provision at Brent Cross – Cricklewood, 5.5 ha of new provision at Mill Hill East and 5 ha at Colindale;*
    - *II. improving access to open spaces particularly in North and East Finchley and other areas of public open space deficiency identified by Map 10. We will seek to improve provision in these areas of deficiency with the objective of increasing the area of the borough that has access to district and local parks in accordance with the London Plan criteria;*
    - *III. securing improvements to open spaces including provision for children's play, sports facilities and better access arrangements, where opportunities arise, from all developments that create an additional demand for open space. Standards for new provision are set out in DM15 – Green Belt and Open Spaces;*
    - *IV. maintaining and improving the greening of the environment through the protection of incidental greenspace, trees, hedgerows and watercourses enabling green corridors to link Barnet's rural, urban fringe and urban green spaces;*

V. *protecting existing Sites of Importance for Nature Conservation and working with our partners including the London Wildlife Trust to improve protection and enhancement of biodiversity in Barnet;*
VI. *ensuring that development protects existing site ecology and makes the fullest contributions to enhancing biodiversity, both through on-site measures and by contribution to local biodiversity improvements; and*
VII. *enhancing local food production through the protection of allotments and support for community food growing including the Mayor's Capital Growth Initiative.*

- *In supporting new Green Infrastructure we will:*
  I. *set out an approach to improving the network of green spaces within the Green Infrastructure SPD;*
  II. *as part of the All London Green Grid work with neighbouring authorities to establish Area Frameworks as the basis for identification, creation and management of new green spaces as part of:*
    a. *Lea Valley and Finchley Ridge Green Grid Area;*
    b. *Brent Valley and Barnet Plateau Green Grid Area.*
  III. *reflect the policies and objectives in the Watling Chase Forest Plan when assessing development proposals in the area covered by the Community Forest."*

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by Natural England will be required for works likely to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficiency/success to be monitored. The legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto* protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost (Garland & Markham, 2008).

There are 17 species of bat breeding in England and Natural England issues licences under Regulation 55 of the Habitats Regulations to allow you to work within the law.

Licences are issued for specific purposes stated in the Regulations, if the following three tests are met:

- The purpose of the work meets one of those listed in the Habitats Regulations (see below);
- That there is no satisfactory alternative;
- That the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status (FCS) in their natural range

The Habitats Regulations permits licences to be issued for a specific set of purposes including:

1. ***include preserving public health or public safety or other imperative reasons of over-riding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;***
2. scientific and educational purposes,
3. ringing or marking
4. conserving wild animals

Development works fall under the first purpose and Natural England issues bat mitigation licences for developments.

EUROPEAN PROTECTED SPECIES POLICIES

In December 2016 Natural England officially introduced the four licensing policies throughout England. The four policies seek to achieve better outcomes for European Protected Species (EPS) and reduce unnecessary costs, delays and uncertainty that can be inherent in the current standard EPS licensing system. The policies are summarised as follows:

- Policy 1; provides greater flexibility in exclusion and relocation activities, where there is investment in habitat provision;
- Policy 2; provides greater flexibility in the location of compensatory habitat;
- Policy 3; provides greater flexibility on exclusion measures where this will allow EPS to use temporary habitat; and,
- Policy 4; provides a reduced survey effort in circumstances where the impacts of development can be confidently predicted.

The four policies have been designed to have a net benefit for EPS by improving populations overall and not just protecting individuals within development sites. Most notably Natural England now recognises that the Habitats Regulations legal framework now applies to 'local populations' of EPS and not individuals/site populations.