



Brighter strategies
for greener projects



Client: Wates
Project: Farnham and Hilldene
Report: Preliminary Ecological Appraisal

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1.0 EXECUTIVE SUMMARY

Greengage Environmental Ltd was commissioned to undertake a Preliminary Ecological Appraisal by Wates of a site known as Farnham and Hildene.

This report has been produced to support a planning submission which seeks:

- Circa 500 residential units;
- 281 on street parking spaces;
- 52 podium park spaces;
- New public realm and amenity;
- Reprovision of commercial area at ground level;
- New active edges; and
- Reprovision of civic uses.

This survey aimed to establish the ecological value of this site and the potential presence of legally protected species in order to inform appropriate mitigation, compensation and enhancement actions in light of proposed development works.

The survey area encompasses the site boundary and extends to an approximately 3.2 hectares (ha) area. It is principally made up of buildings and hardstanding with modified grassland, shrubs and scattered trees.

The key ecological receptors were identified to be roosting bats and nesting birds.

The buildings were found to have low potential to support roosting bats. Further surveys have been recommended and any associated mitigation will be confirmed following the completion of these.

The following mitigation measures are recommended in order to comply with relevant legislation and best practice:

- Demolition and vegetation clearance should be completed outside of nesting bird season.
- Appropriate removal and disposal of invasive/non-native plant species.

The proposals should seek to achieve a net gain in biodiversity. The following enhancement measures have been recommended for incorporation into landscaping proposals:

- Improved lighting strategy;
- Biodiverse green roofs;
- Green wall (Trellis based);
- Wildlife value planting including climate resilient, pollinator friendly species that encourage night flying insects;
- Incorporation of SUDs features such as rain gardens;
- Street tree planting;

- Bird boxes and bat boxes; and
- Invertebrate features (e.g bee bricks and posts).

Should the mitigation (including any further bat mitigation) and enhancement recommendations be incorporated then the proposals will comply with all relevant legislation and policy.

A Biodiversity Net Gain Assessment will be completed once landscaping proposals are available.

2.0 INTRODUCTION

Greengage Environmental Ltd (Greengage) was commissioned to undertake a Preliminary Ecological Appraisal (PEA) by Wates of a site known as Farnham and Hildene.

This report has been produced to support a planning submission which seeks:

- Circa 500 residential units;
- 281 on street parking spaces;
- 52 podium park spaces;
- New public realm and amenity;
- Reprovision of commercial area at ground level;
- New active edges; and
- Reprovision of civic uses.

This survey aimed to establish the ecological value of this site and the potential presence of legally protected species in order to inform appropriate mitigation, compensation and enhancement actions in light of proposed development works.

2.1 SITE DESCRIPTION

The survey area comprises the site boundary which extends to approximately 3.2 ha and is centred on National Grid Reference TQ537919, OS Co-ordinates 553753, 191987.

The majority of the site is covered by existing brick flat roofed residential and commercial buildings with adjacent areas of hardstanding. There are limited areas of soft landscaping which are concentrated towards the northern end of the site.

The area surrounding the application site is predominantly residential in character, comprising a mix of recent and 1960s buildings. The area is generally low to mid-rise in nature, with no listed buildings or other buildings of architectural merit in the vicinity.

The public space in the area consists of predominately hardstanding, except for a few narrow strips of grass and some tree lined streets.

3.0 METHODOLOGY

The PEA was undertaken in accordance with guidance in the UK Habitat Classification System (UKHab)¹ and the Chartered Institute of Ecological and Environmental Management (CIEEM) (2017) Guidelines for Preliminary Ecological Appraisal², in accordance with BS42020:2013: Biodiversity³. The overall assessment consisted of:

- Site-specific biological information gained from statutory and non-statutory consultation; and
- A site walkover with classification of habitats and a protected species scoping assessment.

The site-specific consultation provided the ecological context for the site survey.

The survey boundary and existing site is shown on Figure A.1 (Appendix A).

Greengage undertook the site walkover on 8th August 2023 during sunny weather conditions. Features within the site boundary and accessible features immediately bordering it were evaluated and the extent and distribution of habitats and plant communities were recorded and supplemented with target notes on areas or species requiring further commentary. Fauna using the area were recorded and areas of habitat suitable for statutorily protected species were identified where present, with an active search carried out for evidence of such use.

3.1 DESKTOP REVIEW

A review of readily available ecological information and other relevant environmental databases (including Defra's Multi-Agency Geographic Information for the Countryside (MAGIC) website⁴) was undertaken for the site and its vicinity. In addition, a biological records search from Greenspace information for Greater London (GiGL) were reviewed to identify the location and citations of local non-statutory designated sites and presence of records for notable and protected species. This provided the overall ecological context for the site, to better inform the survey.

3.2 ON SITE SURVEYS

Flora

The extent and distribution of different habitats on site were identified and mapped according to the standard UKHab methodologies, supplemented with target notes describing the dominant botanical species and any features of interest. Any present protected plant species and invasive/non-natives were also noted. A habitat map has been produced to illustrate the results, as shown on Figure A.1

Fauna

The survey specifically included assessments to identify the potential value for notable, rare and protected species at site. This involved identifying potential habitats in terms of refugia, breeding sites and foraging areas in the context of species known to be present locally and regionally.

The likelihood of occurrence is ranked as follows:

- Negligible - While presence cannot be absolutely discounted, the site includes very limited or poor-quality habitat for a particular species. The site may also be outside the known national range for a species;
- Low - On-site habitat is poor to moderate quality for a given species, with few or no information about their presence from desk top study. However, presence cannot be discounted due to the national distribution of the species or the nature of on-site and surrounding habitats;
- Moderate - The on-site habitats are of moderate quality, providing most or all of the key requirements for a species. Several factors may limit the likelihood of occurrence, habitat severance, habitat disturbance and small habitat area;
- High - On-site habitat of high quality for given species. Site is within a regional or national stronghold for that particular species with good quality surroundings and good connectivity; and
- Present - Presence confirmed for the survey itself or recent, confirmed records from information gathered through desk top study.

The species surveyed for included:

Badger (*Meles meles*)

The potential for badger to inhabit or forage within the study area was assessed. Evidence of badger activity includes the identification of setts (a system of underground tunnels and nesting chambers), grubbed up grassland (caused by the animals digging for earthworms, slugs, beetles etc.), badger hairs, paths, latrines and paw prints.

Bat Species (*Chiroptera*)

The site visit was undertaken in daylight and the evaluation of bat potential comprised an assessment of natural features on site that aimed to identify characteristics suitable for bat roosts, foraging and commuting. In accordance with Bat Conservation Trust's Good Practice Guidelines⁵ and methods given in English Nature's (now Natural England) Bat Mitigation Guidelines⁶ consideration was given to:

- The availability of access to roosts for bats;
- The presence and suitability of crevices and other places as roosts; and
- Signs of bat activity or presence.

Definite signs of bat activity were taken to be:

- The bats themselves;
- Droppings;
- Grease marks;
- Scratch marks; and
- Urine spatter.

Signs of possible bat presence were taken to be:

- Stains; and
- Moth and butterfly wings.

Features with potential as roost sites include mature trees with holes, crevices or splits (the most utilised trees being oak (*Quercus* sp.), ash (*Fraxinus excelsior*), beech (*Fagus* sp.), willow (*Salix* sp.) and Scots pine (*Pinus sylvestris*)), caves, bridges, tunnels and buildings with cracks or gaps serving as possible access points to voids or crevices.

Additionally, linear natural features such as tree lines, hedgerows and river corridors are often considered valuable for commuting and semi-natural habitats such as woodland, meadows and waterbodies can provide important foraging resources. Consideration was given to the presence of these features both immediately within and adjacent to the assessment area.

Great Crested Newt (*Triturus cristatus*)

An assessment was carried out to identify any potential habitats that may support great crested newt (GCN) and other native amphibians. The aquatic and terrestrial habitats required generally include small, still ponds or water bodies suitable for breeding, and woodland or grassland areas where there is optimal invertebrate prey potential.

Reptiles

The potential for reptile species on site was assessed during the walkover survey. Possible species include grass snake (*Natrix natrix*), smooth snake (*Coronella austriaca*), adder (*Vipera berus*), common and sand lizard (*Lacerta vivipara* and *L. agilis*) and slow worm (*Anguis fragilis*). These native reptile species generally require open areas with low, mixed-height vegetation, such as heathland, rough grassland, and open scrub or, in the case of grass snake, waterbody margins. Suitable well drained and frost-free areas are needed so they can survive the winter.

Dormouse (*Muscardinus avellanarius*)

During the walkover survey the potential for dormouse to be present on site was assessed. This included observations for suitable habitat such as well-layered woodland, scrub and linking hedgerows, particularly those comprised of species offering suitable food sources such as bramble (*Rubus fruticosus* agg.), honeysuckle (*Lonicera periclymenum*) and hazel (*Corylus avellana*), in addition to direct evidence such as characteristically gnawed hazelnuts, chewed ash keys and honeysuckle flowers, or nests.

Water Vole (*Arvicola amphibious*)

Water vole potential was assessed during the walkover survey. The potential is identified by the presence of ditches, rivers, dykes and lakes with holes and runs along the banks. Latrines, footprints or piles of food can also be noted.

Otter (*Lutra lutra*)

Where desktop review or consultation indicates the presence of otter in a river catchment, the presence of water bodies with good cover and potential holt (den) sites would be noted. Spraint, footprints or food remains can also be noted.

Birds

During the walkover survey, the potential for breeding, wintering and migratory birds was assessed. In particular, this includes areas of trees, scrub, heathland and wetlands that could support nests for common or notable species.

Invertebrates

As part of the walkover survey the quality of invertebrate habitat and the potential for notable terrestrial and aquatic invertebrate species was considered. There is a wide variety of habitats suitable for invertebrates including wetland areas, heathland, areas of bare sandy soil, ephemeral brownfield vegetation and meadows.

Biodiversity Action Plan priority species/ Species of Principal Importance

Where consultation and desk-study indicates the presence of BAP priority species (Species of Principal Importance) not protected by statute, effort was made to establish the potential for the site to support these species.

3.3 SURVEYORS

James Bumphrey, who wrote this report and completed the site survey, has an undergraduate degree in Environmental Sciences (BSc Hons), a Master's degree in Environmental Consultancy (MSc) and a Natural England Great Crested Newt Licence. James is a Director at Greengage has over 10 years' experience in ecology survey and consultancy.

3.4 CONSTRAINTS

Species data collated during the desk study is mainly derived from records submitted by members of the public and ad-hoc surveys undertaken by volunteers. Therefore, it should not be taken as a definitive list of the protected or species of conservation concern that occur in the local area.

No internal access was provided to the buildings on site and therefore this was taken into account when determining roosting potential for bats.

4.0 RESULTS

4.1 DESKTOP REVIEW

Designations

Consultations with GiGL and the MAGIC dataset have confirmed that there are no statutory designations of national or international importance within the boundary of the site.

There are two statutory designated sites within a 2km radius of the site.

Records from GiGL also identified 20 non-statutory Sites of Importance for Nature Conservation Interest (SINCs) within 2km of the site boundary.

Table 4.1 below gives the locations and descriptions of the statutory and non-statutory (closest/most significant) designated sites within the search radius.

Table 4.1 Statutory and Non-Statutory Designated (Closest/Most Significant) Sites within Search Radius

Site Name	Approximate Location	Description
Statutory Designations		
The Manor LNR (Also Metropolitan SINC)	880m west	Dagnam Park is of particular interest as it is a historic Repton landscape which is made up of acid and neutral grassland along with ancient and secondary woodland. It has an English Heritage listed ancient moat site. Duck Wood is an ancient coppice woodland. A wide and diverse range of habitats, including hedgerows, ponds and lakes, can be explored on this site using the many informal paths which meander through the area. Species include great crested newts, harvest mouse, bumblebees, stag beetle, green wood pecker, house martin, skylark and song thrush.
Bedfords Park LNR (Also Metropolitan SINC)	1.2km west	An old estate with a rich variety of habitats including extensive areas of both dry and damp grassland, oak-hornbeam woodland, old hedges and field ponds.
Non-Statutory (SNCI)		
Carter's Brook and Paine's Brook Borough Grade II SINC	600m east	Carter's Brook, forming the northern part of the site, follows a natural, meandering course over a gravel bed. To the south Paine's Brook appears more affected by straightening and deepening.

Site Name	Approximate Location	Description
		This area forms an important corridor through the north of the borough of possible value to bats, while scrub and old trees will be valuable for birds and invertebrates. The stream may be used by water voles though there is heavy recreational use of the sloping, wooded banks.
Bellvue Borough Grade I SINC	700m west	Horse grazed semi-improved neutral grassland generally of good quality though some areas are currently overgrazed.
Long Wood and Sage Wood Borough Grade I SINC	800m west	A sizeable area of ancient woodland, providing access to nature for many people in the north of Havering.
Broxhill Borough Grade II SINC	900m north	Two flower-rich fields with a fine old hedge running across their northern edge.

Biodiversity Action Plans

UK Biodiversity Action Plans (BAPs) have been developed which set priorities for nationally important habitats and species. To support the BAPs, Species/Habitat Statements (otherwise known as Species/Habitat Action Plans) were produced that provide an overview of the status of the species and set out the broad policies that can be developed to conserve them. A list of priority species of conservation importance was also developed.

The UK BAP was succeeded in 2012 by the UK-Post 2012 Biodiversity Framework which informed the creation of the Biodiversity 2020 strategy; England's contribution towards the UK's commitments under the United Nations Convention of Biological Diversity.

Despite this, the UK BAP priority species lists and conservation objectives still remain valid through integration with local BAPs (which remain valid), and in the form of the Habitats and Species of Principle Importance list (as required under section 41 of the Natural Environment and Rural Communities (NERC) Act).

Local Biodiversity Action Plans (LBAPs) ensure that national action plans (the UK BAP/Biodiversity 2020) are translated into effective action at the local level and establish targets and actions for locally characteristic species and habitats.

Havering Nature Conservation and Biodiversity Action Plan

Notable features of the Havering Nature Conservation and Biodiversity Action Plan include:

- Wildlife Corridors and Ecological Networks actions;
- Private gardens actions; and
- 'Significant species' including bats.

Species Record

The information provided in the biological data search from GiGL identified records of a number of protected and BAP priority species within the 2km search radius of the site:

- Bats - Lesser noctule (*Nyctalus leisleri*), Noctule (*Nyctalus noctula*), Common pipistrelle (*Pipistrellus pipistrellus*), Soprano pipistrelle (*Pipistrellus pygmaeus*)
- Birds - House sparrow (*Passer domesticus*), Starling (*Sturnus vulgaris*), Swift (*Apus apus*)
- Hedgehog (*Erinaceus europaeus*)

The species listed above are primarily those known to be in the area that may be impacted by any proposals at the site, or that stand to benefit as a consequence of potential ecological enhancements at the site and inform site-specific mitigation and enhancement recommendations described in the following chapter.

4.2 DETAILED DESCRIPTION OF SITE: HABITATS

The habitats presented across the assessment site consist of the following UKHab categories, as mapped on Figure A.1:

- Developed land; sealed surface;
- Buildings;
- Modified grassland;
- Scattered trees; and
- Introduced shrub.

A habitat plan is provided at Figure A.1 (Appendix A).

Developed land; sealed surface (u1b-1) and Buildings (u1b5)

A significant proportion of the site is occupied by existing buildings and hardstanding. The buildings can broadly be grouped into four:

1. Brick flat roofed four-storey residential blocks with commercial units at ground level;
2. Brick flat roofed single-storey commercial units;
3. Brick flat roofed single-storey buildings at the rear of the commercial units; and
4. A two storey newly built library building.

These buildings are surrounded by hardstanding and associated roads, pavements and car parks.

Photograph 1 - 4-storey residential block with commercial use at ground floor, adjacent to newly built library building



Photograph 2 - Rear of 4-storey blocks with commercial buildings at ground level



Photograph 3 - Additional view of rear of 4-storey blocks with commercial buildings at ground level



Modified grassland (g4) with introduced shrub (1160) and scattered trees (11)

At the northern end of the site are expanses of modified grassland adjacent to an area of car parking and Hildene Avenue. The grass is short and regularly maintained. Species present include perennial ryegrass (*Lolium perenne*), wall barley (*Hordeum murinum*), dock (*Rumex* sp.), daisy (*Bellis perennis*), dandelion (*Taraxacum*), clover (*Trifolium* sp.) and yarrow (*Achillea millefolium*).

Trees are scattered across the areas of introduced shrub. Species present include willow (*Salix* sp.), oak (*Quercus* sp.) and elder (*Sambucus* sp.).

Areas of formal planting are located at the northern end of the site adjacent to the modified grassland. Species present include *Iris* sp., *Pyracantha* sp. and *Buddleia* sp.

Photograph 4 - View of large tree at northern end of the site



Photograph 5 - View of smaller trees and short grassland



Photograph 6 - Buddleia



4.3 DETAILED DESCRIPTION OF SITE: SPECIES

Bats

Foraging

The site is situated in an urban environment surrounded by roads, hard standing and buildings with scattered patches of green space. There are high levels of artificial lighting present on site and in the surrounding area.

Vegetation is focussed towards the northern end of the site and therefore assessed with **low potential** to support foraging bats.

Roosting

An assessment of the potential of the buildings/structures on site is set out in the table below:

Building/Structure	Roosting Features	Roosting Potential
Brick flat roofed four-storey residential blocks with commercial units at ground level	Gaps beneath wooden boarding on small structures at roof level.	Features only likely to be suitable for small numbers of crevice dwelling bats. Owing to urban context and existing lighting levels, roosting potential considered low.

Building/Structure	Roosting Features	Roosting Potential
Brick flat roofed single-storey commercial units	None observed.	Negligible.
Brick flat roofed single-storey buildings at the rear of the commercial units	Gaps beneath wooden boarding in multiple locations. Gaps in brickwork.	Features only likely to be suitable for small numbers of crevice dwelling bats. Owing to urban context and existing lighting levels, roosting potential considered low.
Two storey newly built library building	None observed.	Negligible.

Overall, roosting potential across the existing buildings on site was considered to be **low**.

No suitable roosting features were observed within the trees on site and overall potential was considered to be **negligible**.

Photograph 7 - Example roosting feature



Birds

The scattered trees and shrubs on site provide nesting habitat (high potential) for a range of common and widespread bird species. In addition to this, feral pigeon (*Columba livia domestica*) were observed loafing on the roofs of a number of buildings. Whilst nesting could not be confirmed, the potential for nesting birds using the buildings was considered to be **high**.

Invasive/Non Native Species

Buddleia sp., a London Invasive Species Initiative (LISI) species, was **confirmed present** on site.

All Other Notable and Protected Species

There is considered to be **negligible potential** for all other protected and notable species.

5.0 EVALUATION AND DISCUSSION

5.1 BASELINE SUMMARY

The assessment site and its surroundings have potential to support the following ecological receptors of note, which could therefore be impacted upon by any future prospective development proposals, as indicated in Table 5.1 below. Comment on further recommendations for each receptor is provided; further detail and discussion can be found at paragraph 5.2 onward:

Table 5.1 Baseline Summary

Receptor	Presence/ Potential Presence	Comments
Designated Sites: Statutory	Present within 2km	There are two designated sites within 2km of the proposed development. Owing to the distance between the proposed development and the LNR (880m) no construction phase effects are anticipated. There is potential for increased recreational pressure arising from residents of the development visiting the LNRs. However, given the nature of the habitats present and the existing activity management for recreation, no negative effects are anticipated.
Designated Sites: Non-Statutory	Present within 2km	There are 20 SINCS within a 2km radius of the site. All are over 500m from the site and consequently there are no construction phase effects anticipated.
Foraging bats	Low potential	There is limited foraging value associated with trees on site with a high level of existing lighting. There is the potential to reduce lighting levels on site through the implementation of a sensitive lighting regime. Recommendations regarding foraging bats are provided in section 5.2 below.
Roosting bats	Low potential	The buildings on site have been assessed with low potential to support roosting bats. Recommendations regarding roosting bats are provided in section 5.2 below.
Birds	High potential	Removal of vegetation and buildings on site could stand to kill, injure or disturb nesting birds if undertaken within the nesting bird season. Recommendations regarding nesting birds are provided in section 5.2 below.
Invasive/Non-native Plants	Confirmed present (<i>Buddleia</i> sp.)	Self-seeded buddleia was recorded in several locations. Recommendations for removal are provided in section 5.2 below.

5.2 DISCUSSION AND RECOMMENDATIONS

Discussion is provided below on the key ecological receptors that stand to be impacted/benefit from proposed works; high level commentary on appropriate mitigation, compensation and enhancement actions is also provided.

An Ecological Management Plan (EMP) and Construction Environmental Management Plan (CEMP) should be produced and implemented for the site providing greater detail on the below, which should be secured through planning condition in accordance with BS 42020: 2013 Biodiversity.

Mitigation

Bats

The buildings on site were identified as having low potential to support roosting bats and are scheduled to be removed as part of the proposed development. A dusk emergence survey should be undertaken to ascertain presence or likely absence of roosting bats. The bat survey should be conducted in line with good practice guidelines, comprising one survey visit carried out between May and August, inclusive.

Mitigation and compensation will be confirmed following the completion of the recommended additional emergence survey. However, given the sites urban location, the nature of the potential roosting features and the species records in the area, it is considered that any roosts are likely to be low conservation status roosts supporting a low number of individuals. The likely mitigation strategy in the event that roosts of this nature are recorded is outlined below, which would be undertaken under a licence from Natural England:

- Installation of compensatory bat boxes in retained trees (or on poles) on site.
- Demolition of roosting features under supervision of a licenced ecologist.
- Incorporation of additional compensatory roosting features in new buildings.

Nesting Birds

In order to mitigate the risk of disturbing, injuring or killing nesting birds, tree removal and demolition of relevant buildings should take place outside of the nesting bird season (March – September, inclusive). If this is not possible, clearance may only take place after a suitably qualified ecologist (SQE) has confirmed the absence of nesting birds.

Invasive/Non-native Species

Any buddleia removed should be appropriately disposed of to ensure that it does not spread off-site. The presence of buddleia should be monitored for any future landscaping.

Enhancement

Lighting

Bats are present within the wider area. Given the high existing levels of lighting there is opportunity to enhance the value of the site for commuting and foraging bats.

A sympathetic lighting regime should be implemented for both the construction and operational phase of the development to avoid direct artificial lighting from the period of dusk to dawn in accordance with the Bat Conservation Trust's (BCT) 'Recommendations to help minimise the impact of artificial lighting'⁷ and guidance from the Institution of Lighting Professionals (ILP)⁸. This includes:

- Minimising the spread of light through the use of hoods, cowls and louvers;
- Ensure lighting is task orientated and switched off when not in use;
- The spread of lighting should be minimised to, or near, horizontal to ensure that only the task area is lit;
- Lighting should be switched off or dimmed down after curfew (11pm);
- Avoid using reflective surfaces under lights;
- Use narrow spectrum light sources; and
- Avoid white and blue wavelengths of the light spectrum to reduce insect attraction. Where white light sources are required, they should be of a warm/neutral colour temperature <2,700 kelvin.

Landscaping

In accordance with the National Planning Policy Framework, local policy drivers and recent changes to the legislative context (Appendix B), proposals should seek to provide measurable net gains in biodiversity. These should provide a minimum of 10% net gain in biodiversity, which should be evidenced through a Biodiversity Net Gain (BNG) Assessment using the Natural England Biodiversity Metric 4.0⁹ or similar. A BNG Assessment will be completed once landscaping plans are available.

The following enhancement measures should be considered for incorporation into the landscaping plans:

- Biodiverse green roofs should be incorporated onto proposed buildings where possible, based on a low-nutrient substrate and plug planted and seeded with at least 30 species of known value to wildlife. Green roofs should be further enhanced through the inclusion of features such as log piles, rock piles, sandy piles, and ephemeral wetlands. This will benefit wildlife, including invertebrates, birds and foraging bats.
- Any external landscaping must consist of wildlife friendly trees/shrubs and herbaceous planting selected from the RHS plants for pollinators guide¹⁰. Night scented planting can also be incorporated to enhance the site for bats.
- Green wall trellis systems on buildings and fences consisting of climbing plants such as ivy, honeysuckle, star jasmine, hops or leather flower species. Night scented species such as honeysuckle and star jasmine are preferred.

- Sustainable drainage systems such as rain gardens should be incorporated in suitable locations.
- Bird nest boxes should be incorporated into the design of the buildings. This should include a mix of generalist boxes which are suitable for a variety of species including house sparrow and swift.
- Bat boxes should be incorporated into the design of the buildings. These should be positioned on south or east-facing aspects of the building and fixed at least 3m above ground level.
- Invertebrate features such as bee bricks, bee posts and habitat panels should be located on suitable external landscaping areas.

6.0 SUMMARY AND CONCLUSION

Greengage was commissioned to undertake a Preliminary Ecological Appraisal by Wates of a site known as Farnham and Hildene.

The survey area encompasses the site boundary and extends to approximately 3.2 ha, principally made up of buildings and hardstanding with modified grassland, shrubs and scattered trees.

The site was of limited ecological value, although low bat roosting potential and high bird nesting potential was noted. Further surveys have been recommended and any associated mitigation will be confirmed following the completion of these. Mitigation actions for nesting birds and invasive/non-native plant species have been identified to ensure compliance with legislation and best practice. These should be set out in a CEMP secured by planning condition.

Given the low ecological baseline there is significant opportunity to deliver a net gain in biodiversity on site. Recommendations have been provided for ecological enhancement which should be incorporated into landscaping proposals.

Should the mitigation (including any further bat mitigation) and enhancement recommendations be incorporated then the proposals will comply with all relevant legislation and policy.

A BNG Assessment will be completed once landscaping plans are available.

APPENDIX A SITE PLAN AND HABITAT MAP

Figure A.1 Site Plan and Habitat Map

Figure A.1 Bat Scoping Results

APPENDIX B RELEVANT LEGISLATION AND POLICY

B.1 LEGISLATION

Current key legislation relating to ecology includes The Environment Act¹¹ Wildlife and Countryside Act 1981 (as amended)¹²; The Conservation of Habitats and Species Regulations 2019 ('Habitats & Species Regulations')¹³, The Countryside and Rights of Way Act 2000 (CRoW Act)¹⁴, and The Natural Environment and Rural Communities Act, 2006¹⁵.

The Environment Act, 2021

The Environment Act, 2021 will mandate the requirement for new development in England to deliver a minimum 10% biodiversity net gain (BNG), as measured by the agreed metric (the current relevant version being the Natural England metric 4.0), secured through planning condition as standard (as per schedule 14 of the Act). Approach to the delivery of BNG must follow the mitigation hierarchy, with avoidance of impact and on-site compensation/gains prioritised, ahead of the use of offsite biodiversity unit offsets, or the purchase of biodiversity credits.

The Act introduces the condition that no development may begin unless a biodiversity net gain plan has been submitted and approved by the local planning authority (LPA).

The Act also amends requirements of the NERC Act, 2006, adding the need to not just conserve, but enhance biodiversity through planning projects. Furthermore, it introduces the need for the LPA to have regard to relevant local nature recovery strategies and relevant species/protected site conservation strategies, when making their decision.

Under the Act, the enhancements must be maintained for at least 30 years.

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019

The Conservation of Habitats & Species Regulations replace The Conservation (Natural Habitats, etc.) Regulations 1994 (as amended)¹⁶, and transpose Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora ('EU Habitats Directive')¹⁷, and Council Directive 79/409/EEC on the Conservation of Wild Birds ('Birds Directive')¹⁸ into UK law (in conjunction with the Wildlife and Countryside Act).

Regulation 43 and 47 respectively of the Conservation of Habitats & Species Regulations makes it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2 (European protected species of animals), or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 5 (European protected species of plant). Development that would contravene the protection afforded to European protected species requires a derogation (in the form of a licence) from the provisions of the Habitats Directive.

Regulation 63 (1) states: 'A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which —

(a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects); and

(b) is not directly connected with or necessary to the management of that site;

must make an appropriate assessment of the implications for that site in view of that site's conservation objectives.'

Wildlife and Countryside Act 1981 (as amended)

The Wildlife and Countryside Act 1981 (as amended) is the principal mechanism for the legislative protection of wildlife in Great Britain. This legislation is the means by which the Convention on the Conservation of European Wildlife and Natural Habitats¹⁹ (the 'Bern Convention') and the Birds Directive and EU Habitats Directive are implemented in Great Britain.

The Countryside and Rights of Way Act 2000

The Wildlife and Countryside Act has been updated by the CRoW Act. The CRoW Act amends the law relating to nature conservation and protection of wildlife. In relation to threatened species it strengthens the legal protection and adds the word 'reckless' to the offences of damaging, disturbing, or obstructing access to any structure or place a protected species uses for shelter or protection, and disturbing any protected species whilst it is occupying a structure or place it uses for shelter or protection.

The Natural Environment and Rural Communities Act 2006

The Natural Environment and Rural Communities Act 2006 states that every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity. Biodiversity Action Plans provide a framework for prioritising conservation actions for biodiversity.

Section 41 of the Natural Environment and Rural Communities Act requires the Secretary of State to publish a list of species of flora and fauna and habitats considered to be of principal importance for the purpose of conserving biodiversity. The list, a result of the most comprehensive analysis ever undertaken in the UK, currently contains 1,149 species, including for example, hedgehog (*Erinaceus europaeus*), and 65 habitats that were listed as priorities for conservation action under the now defunct UK Biodiversity Action Plan²⁰ (UK BAP). Despite the devolution of the UK BAP and succession of the UK Post-2010 Biodiversity Framework²¹ (and Biodiversity 2020 strategy²² in England), as a response to the Convention on Biological Diversity's (CBD's) Strategic Plan for Biodiversity 2011-2020²³ and EU Biodiversity Strategy (EUBS)²⁴, this list (now referred to as the list of Species and Habitats of Principal Importance in England) will be used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 41 of the Natural Environment and Rural Communities Act 2006 'to have regard' to the conservation of biodiversity in England, when carrying out their normal functions.

Biodiversity Action Plans

Non-statutory Biodiversity Action Plans (BAPs) have been prepared on a local and regional scale throughout the UK over the past 15 years. Such plans provide a mechanism for implementing the government's broad strategy for conserving and enhancing the most endangered ('priority') habitats and species in the UK for the next 20 years. As described above the UK BAP was succeeded in England by Biodiversity 2020 although the list of priority habitats and species remains valid as the list of Species of Principal Importance for Nature Conservation.

Regional and local BAPs are still valid however and continue to be updated and produced.

Detail on the relevant BAPs for this site are provided in the main text of this report.

Legislation Relating to Nesting Birds

Nesting birds, with certain exceptions, are protected from intentional killing, destruction of nests and destruction/taking of eggs under the Wildlife and Countryside Act 1981 (as amended) and the CRow Act. Any clearance of dense vegetation should therefore be undertaken outside of the nesting bird season, taken to run conservatively from March to August (inclusive), unless an ecologist confirms the absence of active nests prior to clearance.

Legislation Relating to Bats

All UK bats and their roosts are protected by law. Since the first legislation was introduced in 1981, which gave strong legal protection to all bat species and their roosts in England, Scotland and Wales, additional legislation and amendments have been implemented throughout the UK.

Six of the 18 British species of bat have Biodiversity Action Plans (BAPs) assigned to them, which highlights the importance of specific habitats to species, details of the threats they face and proposes measures to aid in the reduction of population declines.

Although habitats that are important for bats are not legally protected, care should be taken when dealing with the modification or development of an area if aspects of it are deemed important to bats such as flight corridors and foraging areas.

The Wildlife & Countryside Act 1981 (WCA) was the first legislation to provide protection for all bats and their roosts in England, Scotland and Wales (earlier legislation gave protection to horseshoe bats only.)

All eighteen British bat species are listed in Schedule 5 of the Wildlife and Countryside Act, 1981 and under Annex IV of the Habitats Directive, 1992 as a European protected species. They are therefore fully protected under Section 9 of the 1981 Act and under Regulation 43 of the Conservation of Habitats and Species Regulations 2017, which transposes the Habitats Directive into UK law. Consequently, it is an offence to:

- Deliberately capture, injure or kill a bat;
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;

- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time);
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat; and
- Intentionally or recklessly obstruct access to a bat roost.

This legislation applies to all bat life stages.

The implications of the above in relation to the proposals are that where it is necessary during construction to remove trees, buildings or structures in which bats roost, it must first be determined that work is compulsory and if so, appropriate licenses must be obtained from Natural England.

B.2 PLANNING POLICY

National

National Planning Policy Framework

The National Planning Policy Framework (NPPF) 2023²⁵ sets out the Government's planning policies for England, including how plans and decisions are expected to apply a presumption in favour of sustainable development. Chapter 15 of the NPPF focuses on conservation and enhancement of the natural environment, stating plans should 'identify and pursue opportunities for securing measurable net gains for biodiversity'.

It goes on to state: 'if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused'. Alongside this, it acknowledges that planning should be refused where irreplaceable habitats such as ancient woodland are lost.

Local

Havering Local Plan

Policy 27 Landscaping

The Council will support development proposals that incorporate a detailed and high quality landscape scheme which:

- i. Takes full account of the landscape character of the site and its wider setting;
- ii. Retains and enhances existing landscape features that contribute positively to the setting and character of the local area;
- iii. Demonstrates how existing landscape features will be protected during the construction phase;
- iv. Maximises opportunities for greening, through the planting of trees and other soft landscaping;
- v. Provides strong boundary treatment that integrates with and is sympathetic to the local landscape character and street scene; and

vi. Supports natural habitats and opportunities for enhancing biodiversity. All proposals will be required to demonstrate that adequate arrangements have been made for future maintenance and management and major development proposals should be supported by a comprehensive Management Plan.

Policy 29 Green infrastructure

The Council will seek to maintain and expand the network of green spaces and natural features in Havering and optimise the benefits of green infrastructure to the environment, economy and community. The Council will support development which includes green infrastructure on-site which is multifunctional and integrates into the wider green infrastructure network. Developers are expected to work with existing partnerships to support and enhance green infrastructure provision including:

- The All London Green Grid
- Thames Chase Community Forest
- Rainham Wildspace
- Land of the Fanns Landscape Partnership
- Roding, Beam & Ingrebourne Catchment Partnership

Policy 30 Biodiversity and geodiversity

The Council will protect and enhance the borough's natural environment and seek to increase the quantity and quality of biodiversity in Havering by:

- i. Ensuring developers demonstrate that the impact of proposals on protected sites and species have been fully assessed when development has the potential to impact on such sites or species. Appropriate mitigation and compensation measures will also need to be identified where necessary. If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission will normally be refused;
- ii. Not permitting development which would adversely affect the integrity of Specific Scientific Interest, Local Nature Reserves and Sites of Importance for Nature Conservation except for reasons of overriding public interest, or where adequate compensatory measures are provided; If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission will normally be refused;
- iii. Supporting proposals where the primary objective is to conserve or enhance biodiversity;
- iv. Encouraging developments where there are opportunities to incorporate biodiversity in and around the development;
- v. Supporting developments that promote the qualitative enhancement of sites of biodiversity value, (by supporting proposals that improve access, connectivity and the creation of new habitats. Measures include maintaining trees, native vegetation, and improving and restoring open spaces and green infrastructure for the benefit of wildlife;

vi. Working with partners and local conservation groups to improve conditions for biodiversity in the borough

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REFERENCES

- ¹ Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020) *The UK Habitat Classification User Manual Version*
- ² CIEEM (2017); *Guidelines for Preliminary Ecological Appraisal*, 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- ³ BSI (2013); *British Standard 42020:2013: Biodiversity – Code of practice for planning and development*, BSI Standards Publication
- ⁴ MAGIC (2019); *Interactive Map*. (Partnership project involving six government organisations: Defra (Department for Environment, Food and Rural Affairs); English Heritage; Natural England; Environment Agency; Forestry Commission; Department for Communities and Local Government). Available at: www.magic.gov.uk.
- ⁵ Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn). The Bat Conservation Trust, London
- ⁶ English Nature, (2004); *Bat Mitigation Guidelines*. English Nature.
- ⁷ Bat Conservation Trust (2018) *Artificial lighting and wildlife Interim Guidance: Recommendations to help minimise the impact artificial lighting*.
- ⁸ Institute of Lighting Professionals (IPL) (2018). *Guidance Note 08/18: Bats and artificial lighting in the UK*.
- ⁹ Natural England (2021). *The Biodiversity Metric 3.1* (JP039). Available at: <http://publications.naturalengland.org.uk/publication/6049804846366720>
- ¹⁰ Royal Horticultural Society (2017). *Perfect for Pollinators*. RHS, London
- ¹¹ GOV.UK. (2021). *Environment Act 2021*. Available at: <https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted>
- ¹² HM Government, (1981); *Part I and Part II of Wildlife and Countryside Act (as amended)*. HMSO
- ¹³ HM Government, (2017); *The Conservation of Habitats and Species Regulations 2017*. Statutory Instrument 2017 no. 490 *Wildlife Countryside*. OPSI
- ¹⁴ HM Government, (2000); *The Countryside and Rights of Way Act*. HMSO
- ¹⁵ HM Government, (2006); *Natural Environment and Rural Communities Act 2006*. HMSO
- ¹⁶ HM Government, (1994); *The Conservation (Natural Habitats, &c.) Regulations*. HMSO
- ¹⁷ CEC (Council of the European Communities), (1992); *Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora*
- ¹⁸ The European Parliament And Of The Council, (30 November 2009); *Directive 2009/147/EC On The Conservation Of Wild Birds* (Codified Version)
- ¹⁹ CEC (Council of the European Communities), (1979); *Convention on the Conservation of European Wildlife and Natural Habitats* (Bern, 19.IX.1979). EC
- ²⁰ UK Biodiversity Action Plan (2007). *UKBAP Priority Species and Habitats*. <http://www.ukbap.org.uk/newprioritylist.aspx>
- ²¹ JNCC and Defra (on behalf of the Four Countries' Biodiversity Group) (2012). *UK Post-2010 Biodiversity Framework*. July 2012. Available from: <http://jncc.defra.gov.uk/page-6189>
- ²² Defra (2011). *Biodiversity 2020: A strategy for England's wildlife and ecosystem services*
- ²³ Convention on Biological Diversity (CBD) (2010). *Decision X/2 Strategic Plan for Biodiversity 2011-2020, including Aichi Biodiversity Targets*. Available at <https://www.cbd.int/decision/cop/?id=12268>
- ²⁴ European Commission (2012). *Our life insurance, our natural capital: an EU biodiversity strategy to 2020* European Parliament resolution of 20 April 2012 on our life insurance, our natural capital: an EU biodiversity strategy to 2020 (2011/2307(INI))
- ²⁵ GOV.UK. (2022). *National Planning Policy Framework*. [online] Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2>