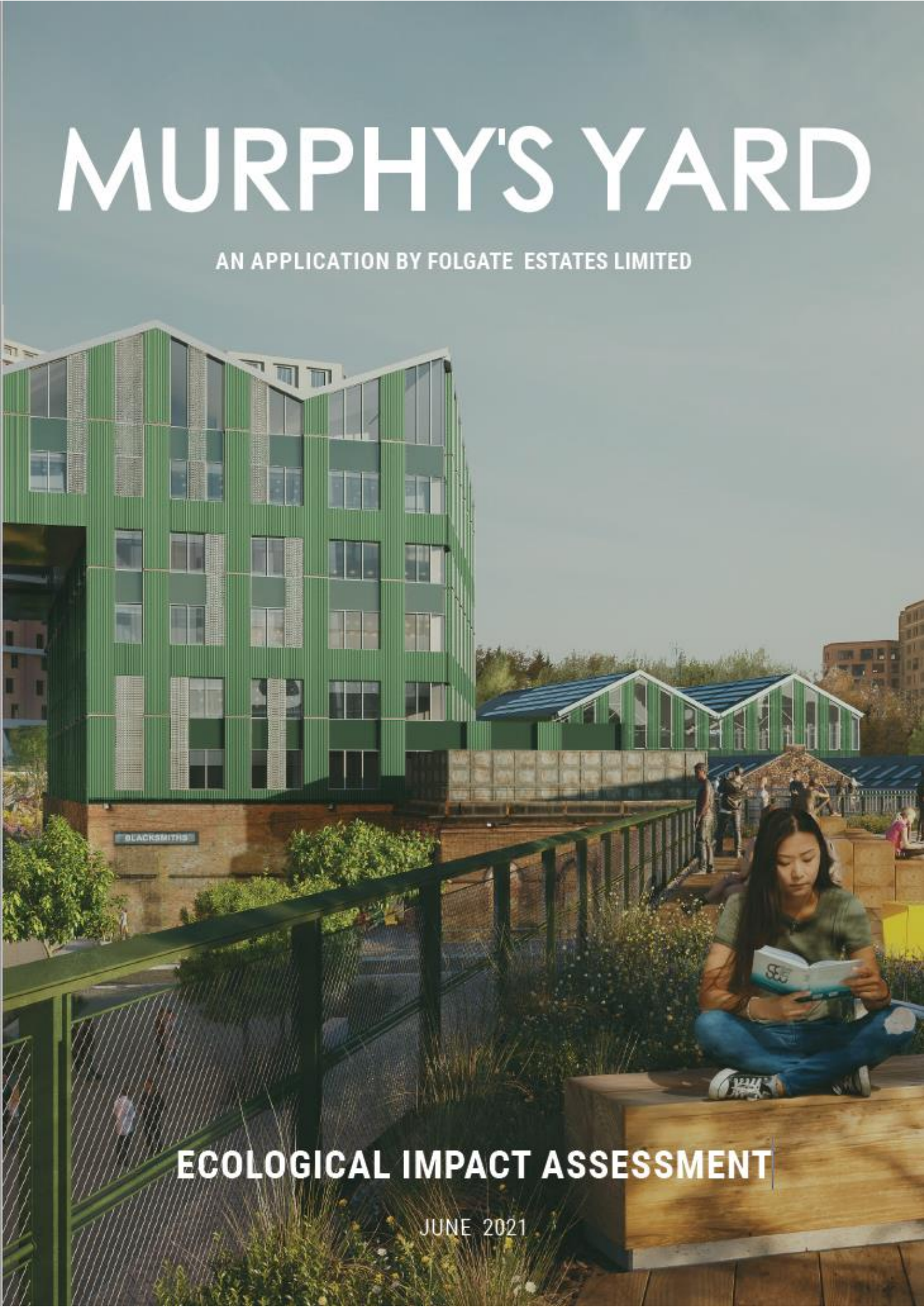
MURPHY'S YARD

AN APPLICATION BY FOLGATE ESTATES LIMITED



ECOLOGICAL IMPACT ASSESSMENT

JUNE 2021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Murphy' s Yard, Kentish Town, London / Ecological Impact Assessment / **Report for Folgate Estates Ltd**

Murphy's Yard, Kentish Town, London

Ecological Impact Assessment

Report for Folgate Estates Ltd

Job Number	5240			
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Executive Summary

The Ecology Consultancy was commissioned by Folgate Estates Ltd in May 2021 to carry out an Ecological Impact Assessment (EcIA) in relation to the proposed development of land to the south of Gordon House Road bounded by railway lines to the east, west and south, known as Murphy's Yard, in Kentish Town, London (henceforth referred to as 'the Site'). This includes clearance of many of the existing buildings on site, limited areas of ephemeral vegetation, and a small number of trees, and large areas of hardstanding. The proposals include the construction of new employment, residential and community uses including new parks and open spaces, and a green connection to Hampstead Heath. The main findings are as follows:

- Assessment of the baseline data identified features of importance for nature conservation (i.e. of ecological importance at greater than the zone of influence of the site level) including: Hampstead Heath Site of Borough Importance for Nature Conservation (SBINC), Kentish Town City Farm, Gospel Oak Railsides and Mortimer Terrace Nature Reserve SBINC adjacent to the site, and presence of bats and breeding birds.
- Taking into account the embedded mitigation proposed within the scheme, no significant impacts are expected on any features of importance for nature conservation as a result of the development at either the construction or operational stage.
- In line with the established mitigation hierarchy, a range of mitigation measures are proposed to further minimise the impacts of the development , including:
    - a sensitive lighting strategy to avoid illumination of existing and newly created foraging and commuting habitat for bats,
    - toolbox talks and ecological supervision provided by an Ecological Clerk of Works (ECoW), with regard to breeding birds.
    - a CEMP should be prepared to ensure the above measures are implemented. This should be secured through a suitably worded planning condition.
- Consideration of other extant planning proposals identified that, in combination, the proposed developments are unlikely to result in any significant cumulative effects on ecological receptors.
- Taking account of proposed mitigation measures, no likely significant residual negative effects on features of nature conservation importance are predicted as a result of the proposed development.
- In line with national, regional and local policies, enhancements to improve the importance of the Site for biodiversity and provide a biodiversity net gain, include incorporation of

planting for wildlife, green roofs, prairie style planting, native hedges, SuDS, and the provision of bird, bat and insect nesting opportunities.

1. Introduction

BACKGROUND TO COMMISSION

1.1. The Ecology Consultancy was commissioned by Folgate Estates Ltd in May 2021 to carry out an Ecological Impact Assessment (EcIA) in support of an outline planning submission for the proposed development at the Murphy's Yard, Kentish Town, London.

SCOPE OF THE REPORT

1.2. The assessment describes the assessment methodology; the ecological baseline; and identifies likely impacts and significant ecological effects that will arise from the proposals, during the construction and operational phases in accordance with current best practice guidance (Chartered Institute for Ecology and Environmental Management (CIEEM), 2018). These include likely significant impacts on species, habitats and protected sites. Where relevant, proportionate mitigation measures have been taken into account in line with the established mitigation hierarchy as set out in British Standard 42020:2013 Biodiversity - Code of Practice for Biodiversity and Development (BSI, 2013), to determine predicted residual effects. The potential for cumulative effects, in combination with other proposed developments in the vicinity, is also assessed. This assessment is required to ensure that all potential significant ecological impacts are identified and addressed. Please note that whilst ecological enhancement recommendations provided within this report may be used to facilitate a net gain in biodiversity, this EcIA does not provide a formal Biodiversity Net Gain assessment and a standalone Biodiversity Net Gain report accompanies this document (The Ecology Consultancy, 2021).

1.3. A Figure of the site showing the habitats mapped during the Phase 1 habitat survey is provided in Appendix 1, Figure 2. The extent of the Murphy's Yard site based on plans provided by the client (Studio Egret West, 2021a) is provided in Appendix 1, Figure 2. Details of relevant legislation and policy are provided in Appendix 2.

1.4. Nomenclature used in this report follows Stace (2019) for vascular plants and the Natural History Museum (2021) for other species. Common names only are provided in the text with scientific names provided in the relevant baseline reports.

SITE CONTEXT AND STATUS

1.5. The proposed development site is 6.23 hectares (ha) in size and is centred on Ordnance Survey National Grid reference TQ 2859 8544. The site lies within the urban area of Kentish Town, to the south of Gordon House Road and west of Sanderson Close. It is not subject to any nature conservation designations, but it is bordered by railway lines to the north, north-east, south-west and south, which make up part of the Kentish Town City Farm, Gospel Oak Railsides and Mortimer Terrace Nature Reserve Sites of Borough Importance for Nature Conservation (SBINC grade I). The wider landscape is dominated by urban development to the west, east and south, comprising residential and industrial use, with scattered trees and amenity greenspaces. The Site of Metropolitan Importance for Nature Conservation (SMINC) of Hampstead Heath, which is a large greenspace with ponds, grassland and woodland, is situated approximately 220m to the north-west of the site.

DEVELOPMENT PROPOSALS

1.6. The current development proposals involve "Outline planning permission with all matters reserved for the demolition of existing buildings and structures and redevelopment to be carried out in phases (with each phase being an independent act of development) comprising the following mix of uses: residential (Use Class C3), residential institution (Use Class C2), industrial (Use Class B2 and/or B8), commercial floorspace (Class E), flexible commercial and Sui Generis floorspace (Use Class E and/or Sui Generis Use), Community (F1 and/or F2), Sui Generis, and cycle and vehicle parking, refuse and recycling storage, plant, highway and access improvements, amenity space, landscape and public realm improvements, and all associated works".

RELEVANT LEGISLATION AND PLANNING POLICY

Legislation

1.7. The following key pieces of nature conservation legislation are relevant to this assessment. A more detailed description of legislation is provided in Appendix 2:

- The Conservation of Habitats and Species Regulations 2017 (as amended);
- Wildlife and Countryside Act 1981 (as amended);
- Natural Environment and Rural Communities Act 2006;
- Protection of Badgers Act 1992; and
- Wild Mammals (Protection) Act 1996.

National Planning Policy

1.8. The revised National Planning Policy Framework (Ministry of Housing Communities and Local Government, 2019) requires local authorities to avoid and minimise impacts on biodiversity and to provide net gains in biodiversity when taking planning decisions.

Local Planning Policy

1.9. The London Plan (GLA, 2021) places greater emphasis on green infrastructure, including proposals for its incorporation within developments. Local Boroughs are encouraged to develop their own 'Urban Greening Factor' to identify the appropriate target for urban greening. This is based on the proportion of surface cover that contributes to ecosystem services. The target score is 0.4 (housing) or 0.3 (commercial) increase[1]. Further information is provided in Appendix 2

1.10. Other planning policies at the local level which are of relevance to this development include the Kentish Town Neighbourhood Plan (Camden, 2016), Dartmouth park Neighbourhood Plan (Camden, 2020), Kentish Town Planning Framework (Camden, 2020) and The Camden Local Plan (Camden, 2017). Further information is provided in Appendix 2.

[1] The new draft London Plan is subject to amendment prior to adoption.

2. Methodology

BASELINE SURVEYS AND SOURCES OF INFORMATION

2.1. The current pre-development ecological baseline was established through a review of existing survey and assessment data, and an update extended Phase 1 survey carried out on the 6 May 2021.

2.2. The following data sources were reviewed to provide information on the location of statutory designated sites[2], non-statutory designated sites[3], legally protected species[4], Species and Habitats of Principal Importance[5] and other notable species[6] and notable habitats[7] that have been recorded within a 1km radius of the site, and 2km for statutory designated sites:

- Greenspace Information for Greater London (GiGL, 2020), the local Biological Records Centre, principally for species records and information on non-statutory sites;
- MAGIC (http://www.magic.gov.uk/) - the Government's on-line mapping service; and
- Ordnance Survey mapping and publicly available aerial photography.

2.3. Web-based data on Special Protection Areas, Special Areas for Conservation and Ramsar Sites was also reviewed from within a 15km radius of the site boundary.

2.4. Key documents and other information sources used to inform this assessment include:

- Murphy's Yard Design Code, Studio Egret West (2021b).

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2 **Statutory designations** include Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, National Nature Reserves (NNR), Sites of Special Scientific Interest (SSSI) and Local Nature Reserves (LNR).

3 **Non-statutory sites** are designated by local authorities (e.g. Sites of Importance for Nature Conservation or Local Wildlife Sites).

4 **Legally protected species** include those listed in Schedules 1, 5 or 8 of the Wildlife and Countryside Act 1981; Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended); or in the Protection of Badgers Act 1992 (as amended).

5 **Species/Habitats of Principal Importance** are those listed on Section 41 of the Natural Environment and Rural Communities Act, 2006.

6 **Notable species** include Species of Principal Importance under the Natural Environment and Rural Communities Act 2006; Local Biodiversity Action Plan (LBAP) species; Birds of Conservation Concern (Eaton *et al.*, 2015); and/or Red Data Book/nationally notable species (JNCC, undated).

7 **Notable habitats** include Habitats of Principal Importance under the Natural Environment and Rural Communities Act, 2006; those included in an LBAP; Ancient Woodland Inventory sites; and Important Hedgerows as defined by the Hedgerow Regulations 1997.

- Murphy's Yard Illustrative Masterplan Soft Landscaping Types (DRAFT), Studio Egret West (2021c).
- Preliminary Ecological Appraisal, Murphy Site, Kentish Town, London, The Ecology Consultancy (2019a).
- Bat Survey Report, Murphy Site, Kentish Town, London, The Ecology Consultancy, (2019b).
- Scoping opinion text: Ecology, Murphy Site, Kentish Town, London, The Ecology Consultancy (2020).

Field Surveys

2.5. An extended Phase 1 Habitat survey was carried out on the 6 May 2021 by Andrew Lewis BSc MSc ACIEEM in order to determine any significant changes to the site since the previous Phase 1 habitat survey completed in 2019 (The Ecology Consultancy, 2019a). It covered the site, as well as habitats within the immediate vicinity (which together are referred to as the survey area). Habitats were described and mapped following standard Phase 1 habitat survey methodology (JNCC, 2010). Habitats were also assessed against descriptions of Habitats of Principal Importance as set out be the JNCC, as well as against Local Biodiversity Action Plan (LBAP) habitats. The suitability of the Site for legally protected species was assessed using relevant desk study records[8] combined with field observations from the habitat survey. The likely importance of habitat for protected species occurrence was ranked on a scale from 'negligible' to 'present'.

2.6. Following the original Phase 1 habitat survey and Preliminary Roost Assessment (The Ecology Consultancy, 2019 a & b), two buildings on site were assessed as having low potential for roosting bats. Bat presence/likely absence surveys were then carried out on these buildings in 2019 (The Ecology Consultancy, 2019b). No evidence of a bat roost was found within any of the buildings on site.

2.7. Following the results of the update extended Phase 1 habitat survey, it was considered not necessary to carry out any further survey with regard to ecology in order to inform this Ecological Impact Assessment.

[8] Primarily dependent on the age of the records, distance from the Site and types of habitats present.

Predicting Future Baseline Conditions

2.8. In addition to determining the current baseline through field survey, it is important to characterise the likely future baseline conditions as they would be in the absence of the development, over the same timescale over which the development is proposed to be in place. These predictions are based on the existing land-use, habitat extent and conditions, current and anticipated management and any existing or proposed developments, based on publicly available information on existing planning applications.

ECOLOGICAL IMPACT ASSESSMENT

2.9. The impact assessment methodology for the proposed development follows the methodology set out by CIEEM in their Guidelines for Ecological Impact Assessment (CIEEM, 2018).

Scope of Assessment

2.10. The scope of this assessment has been determined based on the development proposals provided and the baseline information collated to inform the documents listed in paragraph 2.4. The determination of scope takes account of the following considerations:

- suitable spatial and temporal scales for the assessment;
- potentially important ecological features that could be subject to significant positive or negative impacts;
- proposed activities with potential to give rise to significant ecological effects;
- additional proposals with potential to give rise to cumulative effects in combination with the proposed development; and
- relationships with other issues e.g. water, landscapes.

2.11. The geographic scope of the assessment (i.e. the zone of influence) is defined by the area within which potential ecological impacts are considered likely to occur. This includes the physical extent of land-use associated with the proposals as well as indirect or exported effects of pollution and light or noise disturbance that may affect a wider area. The scope of assessment is determined for each impact based on its likely spatial extent and the distribution of ecological features likely to be affected.

2.12. Land within and immediately adjacent to the development footprint may be directly affected by land-take, while effects of noise will be determined based on predicted noise contours. Effects on wider scale ecological features, such as bats (which may forage over wide areas) or landscape-scale habitat networks, will be assessed where their extent overlaps with the predicted extent of impacts.

2.13. The zone of influence for bats and birds encompasses a 2km radius from the proposed development boundary. For all other ecological features, the zone of influence is up to 500m from the boundary.

2.14. The temporal scope of assessment is taken to include the lifetime of the project from initial site works, through 'construction' and operation to decommissioning and (where necessary) restoration.

Assessment of cumulative effects

2.15. Where other developments are proposed in the vicinity of the site, there is potential that these could give rise to cumulative effects in combination with the proposed development. Particular attention was given to proposals adjacent to the rail corridor that are likely to result in loss of trees or scrub vegetation. Additional proposals to be considered in the assessment include:

- Regis Road Growth Area
- Gospel Oak/Haverstock Regeneration Area

IMPORTANCE OF ECOLOGICAL FEATURES

2.16. In line with CIEEM guidelines, features likely to be important in terms of biodiversity will be identified and evaluated on a geographical scale of importance as set out below in Table 2.1. In descending level of importance, features assessed to be 'important' are categorised as: international and European; national; regional (Greater London); metropolitan, county, vice county or other local authority-wide area (North London); and Local (district, borough or parish (London Borough of Camden). Features of less than Local level of importance are classified as being of Site level (Zone of Influence) importance where they have ecological importance within their immediate vicinity, or otherwise as being of negligible importance.

Table 2.1 Definition of Nature Conservation Policy: Importance/Sensitivity

Scale of Importance	Examples of Definitions
International	An internationally designated site e.g., Special Protection Area (SPA), Special Area of Conservation (SAC), Ramsar site, or site considered worthy of such designation; A viable area of a habitat type listed in Annex 1 of the Habitats Directive, or smaller area of such habitat which are essential to maintain the viability of a larger whole; or, A regularly occurring, substantial population of an internationally rare species.
National (UK)	A nationally designated site e.g., Site of Special Scientific Interest (SSSI), or site considered worthy of such designation; A viable area of habitat identified as a Habitat of Principle Importance (also known as a Section 41 habitat), or of smaller areas of such habitat, which are essential to maintain the viability of a larger whole; or, A regularly occurring, substantial population of a nationally rare species.
Regional [Greater London]	Areas of Internationally or Nationally important habitats, which are degraded but are considered readily restored; or, A regularly occurring, substantial population of a regionally scarce species.
County [North London]	A site designated as a County Wildlife Site (CWS); or, A regularly occurring, substantial population of a species scarce in the county.
Local, District, Borough, Parish [London Borough of Camden]	Viable areas of Local Biodiversity Action Plan (BAP) Priority Habitat, or small areas of such habitat which are essential to maintain the viability of a larger whole; or, A regularly occurring, population of a species scarce in the District/Parish.
Site (Zone of Influence)	A regularly occurring population within the site itself or the Zone of Influence of development.
Negligible	A habitat which offers little importance for nature conservation

Importance Based on Biodiversity Attributes

2.17. The ecological importance of areas of habitat and plant communities has been assessed against published selection criteria where available. Local BAPs, where they remain relevant, have been searched to identify whether action has been taken to protect all areas of a particular habitat and to identify current factors causing loss and decline of particular habitats. The presence of legally controlled weeds has also been taken into account.

2.18. When assigning a level of importance to a species, its distribution and status, including a consideration of trends based on available historic records, has been taken into account. Other factors influencing the value of a species are legal protection, rarity and Species Action Plans (SAPs). Guidance, where it is available, for the identification of populations of sufficient size for them to be considered of National or International importance has also been taken into account. Additionally, evaluation of importance has been based on inclusion on Annexes II, IV and V of the Habitats Directive, Annex I of the Birds Directive, under Section 41 of the NERC Act (2006) as Species of Principal Importance in England, as Red/Amber under the Birds of Conservation Concern 4 (the UK Red List for birds), under Annexes 1, 5 and 8 of the Wildlife and Countryside Act (1981 as amended) and as Local BAP species.

2.19. Factors taken into consideration in determination of importance of ecological features include (CIEEM, 2018):

- designations and nature conservation status:
    - statutory and non-statutory designated sites for nature conservation;
    - habitats and species of principal importance for nature conservation in England (NERC Act, s.41);
    - local BAP priority habitats and species (Camden, 2013-2018);
    - RDB species of conservation concern (JNCC, 2020);
    - Birds of Conservation Concern (Eaton *et al.*, 2015);
    - nationally rare and nationally scarce species; and,
    - legally protected species.
- naturalness;
- animal or plant species, sub-species or varieties that are rare or uncommon, either Internationally, Nationally or more Locally, including those that may be seasonally transient;
- ecosystems and their component parts, which provide the habitats required by important species, populations and/or assemblages;
- endemic species or locally distinct sub-populations of a species;
- habitat diversity;
- habitat connectivity and/or synergistic associations;
- habitats and species in decline;

- rich assemblages of plants and animals;
- large populations of species or concentrations of species considered uncommon or threatened in a wider context;
- plant communities (and their associated animals) that are considered to be typical of important natural/semi-natural vegetation types, including examples of naturally species-poor communities;
- species on the edge of their range, particularly where their distribution is changing as a result of global trends and climate change; and,
- ecosystem services/natural capital.

Evaluation of Impacts

2.20. An assessment of likely ecological impacts has been undertaken in accordance with CIEEM guidelines (2018) only where clear evidence is available to substantiate and justify the findings. In the absence of such evidence, the precautionary principal has been applied and the effect included as significant in the absence of evidence to the contrary. Impacts have been assessed initially without mitigation in accordance with the approach adopted by CIEEM (2018). Following identification of the scale and magnitude of impacts, mitigation measures have then been proposed that are commensurate with the effects identified. The impact assessment has then been reapplied to determine the scale of any residual impacts to each ecological receptor. Only those receptors for which effects are considered significant are carried through to the mitigation stage.

2.21. A level of significance has been assigned to each predicted impact. This has been estimated on the same geographic scale as set out in Table 2.1. Where an ecological feature falls into more than one category of scale (e.g. a site designated at both the International and National level), then the highest category is always selected for evaluation purposes.

2.22. Activities likely to generate effects on ecological receptors have been identified by considering the following:

- the design of the overall development;
- desk study information;
- field survey information; and,
- EIA experience and publications relating to similar projects/schemes.

2.23. Activities likely to generate effects were then broadly categorised into the following:

- Construction of the overall development;
- Operation of the overall development; and,
- Potential non-standard operations (e.g., one off incidents and accidents).

2.24. The assessment takes account of the effects of impacts on ecologically important features according to the following process:

- Identifying and characterising impacts;
- Taking account of measures to mitigate for these impacts;
- Assessing the significance of any residual effects after mitigation;
- Identifying appropriate compensation measures to offset significant residual effects; and,
- Identifying opportunities for ecological enhancement and/or a Biodiversity Net Gain.

2.25. In accordance with BS4202: 2013 and CIEEM guidelines (2018), the following factors have been taken into account for each identified impact on each relevant ecological feature:

- Positive or negative;
- Extent;
- Magnitude (size/amount/intensity/volume);
- Duration (short, medium or long-term, permanent or temporary);
- Timing/frequency (occurring at a critical stage in lifecycle, regular or irregular); and,
- Reversibility (reversible or irreversible).

2.26. Suitable measures have been recommended to:

- Avoid negative ecological effects;
- Reduce negative ecological effects that cannot be avoided;
- Provide mitigation to offset effects; and,
- Deliver ecological enhancements to achieve net gains in biodiversity.

2.27. Assessments have been based on available literature and professional judgement as to whether the integrity (of a site or ecosystem) or the conservation status (of a habitat or species) is likely to be affected; in other words, whether the effect would be 'significant' in ecological terms.

2.28. 'Integrity' in relation to land lacking a designation or objectives for nature conservation is a long-term concept and defined as follows:

'*The integrity of a site is the coherence of its ecological structure and function, across its whole area that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species that would be considered acceptably characteristic of the Site*'.

2.29. For habitats, conservation status:

'*… is determined by the sum of the influences acting on the habitat and its typical species that may affect its long-term distribution, structure and functions as well as the long-term survival of its typical species within a given geographical area*'.

2.30. For species, conservation status:

'*… is determined by the sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its populations within a given geographical area*'.

Each effect is then considered significant at the level at which the ecological receptor is important, combined with the scale at which the impact itself is likely to incur an effect. Please note that the ecological value of a given receptor may not, therefore, be the same as the scale of impact significance.

2.31. Where ecological constraints to development are identified, mitigation measures that are proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development are described. In addition, in accordance with the NPPF, opportunities for the provision of net gains in biodiversity are provided in the accompanying Biodiversity Net Gain report (The Ecology Consultancy, 2021).

2.32. Where applicable, suitable monitoring or follow-up arrangements to determine whether mitigation has been successful and to specify appropriate remedial actions have been

proposed. Lastly, residual effects are assessed using the aforementioned methods employed for the assessment of unmitigated impacts.

DATA VALIDITY AND LIMITATIONS

2.33. Every effort has been made to provide a comprehensive description of the site, however, the following limitations apply to this assessment.

- The survey was conducted in May, within the optimal season for habitat surveys and given the habitat types present, the survey is considered to be an accurate reflection of the habitats on site.
- Even where data for a particular species group are provided in the desk study, a lack of records for a defined geographical area does not necessarily mean that there is a lack of ecological interest, the area may simply be under-recorded.
- This assessment is based upon the illustrative scheme as a development scenario which could feasibly come forward within the parameters sought for approval.

2.34. Despite these limitations, it is considered that this report reflects accurately the habitats present, their biodiversity importance and the potential of the site to support protected and notable species.

3. Ecological Baseline

CURRENT BASELINE

3.1. This section describes the ecological baseline and assesses the importance of ecological features relevant to the assessment for the designated sites, habitats and species recorded in this area. It includes field survey data and relevant existing information gathered from the key documents relating to the site.

Designated Sites

Statutory Sites

3.1 The proposed development site is not subject to any statutory nature conservation designations. There are three national statutory designated sites within 2km of the site; Belsize Wood Local Nature Reserve (LNR) is the closest, located approximately 0.9km south-west of the site. There are four International statutory sites within a 15km radius of the site; Lee Valley Ramsar & SPA is the closest, located approximately 6.5km north west.

Table 3.1: Statutory Designated Sites

Site Name	Distance from site and orientation	Reason for designation and geographic scale of importance
Lee Valley Ramsar & SPA	6.5km north east	An internationally designated site, The Lee Valley SPA comprises a series of embanked water supply reservoirs, sewage treatment lagoons and former gravel pits that display a range of man-made and semi-natural wetland and valley bottom habitats. Classified as an SPA due to its importance in supporting populations of European importance of the following overwintering and migratory Annex I species: bittern, shoveler, and gadwall. Listed as a Ramsar site due to its importance in supporting nationally scarce plant species, whorled water-milfoil and rare invertebrate *Micronecta minutissima*; and for supporting species/populations of international importance, Northern shoveler and gadwall.
Epping Forest SAC	11km north east	An internationally designated site, Epping Forest SAC comprises a predominantly a large deciduous woodland, primarily designated for the presence of Annex I habitats, Atlantic acidophilous beech forests , Northern Atlantic wet heaths and European dry heaths. Also for the presence of Annex II species Stag beetle.
Richmond Park SAC	12.5km south west	The site comprises 846ha of improved and semi-improved grassland, broad-leaved deciduous woodland, mixed woodland, inland water bodies, heathland, scrub and other habitats. The common has a large number of old trees and

Site Name	Distance from site and orientation	Reason for designation and geographic scale of importance
		fallen decaying timber known to support important numbers of stag beetle; the primary reason for its designation as an SAC.
Wimbledon Common SAC	12.5km south west	The site comprises 351ha of improved and semi-improved grassland, broad-leaved deciduous woodland, scrub, heathland, and other habitats. The common has a large number of old trees and fallen decaying timber known to support important numbers of stag beetle; again the primary reason for designation.
Belsize Park (LNR)	0.9km south-west	A nationally designated site, Belsize Wood has a broad diversity of insect species, probably due to the floral diversity within the LNR. There is a pond, bird feeding area, bird boxes and stag beetle loggeries on site.
Adelaide Road (LNR)	1.3km south west	A nationally designated site, there is a broad diversity of especially plant and invertebrate species associated with the meadow. The reserve is dominated by a south facing meadow with some adjacent areas of woodland. There are two ponds one of which has a dipping platform. A circular path runs around the site.
Hampstead Heath Woods (SSSI)	2km north west	A nationally designated site, the site has many old and over-mature trees, and extensive dead wood which provides a habitat for invertebrates, including the nationally rare jewel beetle Agrilus pannonicus. This type of canopy is uncommon nationally and very scarce in Greater London. The main trees are sessile oak and beech, with a few pedunculate oaks and wild service trees. The shrub layer is dominated by holly and rowan. Next to Ken Wood is a small valley which has soft-rush, six sphagnum species and water horsetail.

3.2. Given the scale and nature of the proposed development, and the distance to these receptors, no impacts to these sites are predicted and these sites are not considered further in this assessment.

Non-Statutory Sites

3.3. The proposed development site is not subject to any non-statutory nature conservation designations. Four non-statutory sites designated as Sites of Importance for Nature Conservation at the Metropolitan (SMINC) and Borough (SBINC) grades are present within 1km of the site (see Table 3.2).

Table 3.2: Non Statutory Designated Sites

Site Name	Distance from site and orientation	Reason for designation and geographic scale of importance
Kentish Town City Farm, Gospel Oak Railsides and Mortimer Terrace Nature Reserve (SBINC grade I)	Adjacent to site at the northern, north-eastern, southern and south-western boundaries.	The railsides of the complex junction at Gospel Oak support a mosaic of habitats including secondary woodland interspersed with scrub, grassland and tall herbs. Kentish Town City Farm has a good wildlife garden with a pond planted with native marginal plants such as reed sweet-grass, yellow iris and water mint, with common frogs present. Most of the hedges and trees planted on site are native species although self-established sycamore is quite common. The farm has an excellent bog-garden where insectivorous plants are grown, including all three native species of sundew (Drosera. spp.). The farm is a good place to see butterflies and one of the few places in Camden that still supports a healthy population of house sparrows.
Hampstead Heath (SMINC)	220m north-west	An extensive site with a mix of semi-natural and formal habitats. Ancient woodlands contain old and over-mature trees, providing dead wood habitat for a range of specialist invertebrates, including the nationally rare jewel beetle Agrilus pannonicus. Another important habitat is the small wet flush (or bog) containing several species of bog-mosses (Sphagnum spp.) and water horsetail (Equisetum fluviatile), all very rare in London. Acid grassland occurs on the upper slopes, supporting heath bedstraw, pill sedge, pignut and other characteristic plants. Relict heathland invertebrates include the tube-web spider at its only known London site. The many ponds and watercourses on the site are of further botanical, entomological and ornithological interest. Other rare plants include creeping willow, lemon-scented fern and hard fern.
Junction Road Railway Cutting (SBINC grade 1)	0.7km north-east	An isolated but well-vegetated section of the Crouch Hill line, which supports an extensive mosaic of open and wooded habitats, valued by birds, mammals and insects. The sides of the cutting support secondary woodland and scrub dominated by sycamore, ash and bramble.
Dartmouth Park Hill and Reservoir (SBINC grade 1)	0.75km north-east	A covered reservoir and adjacent park supporting a variety of grassland wildflowers. A variety of grassland communities is present here, which grade from neutral to acidic types. Locally uncommon plants include burnet saxifrage, grey sedge, sheep's sorrel and common sorrel and field woodrush. Associated fauna includes the small copper butterfly, which feeds on the sorrels.

Ancient Woodland

3.4. There is one area of ancient and semi-natural woodland within a 2km radius of the site shown on the ancient woodland inventory, located at Ken Wood, approximately 1.7km north-west of the site.

Habitats of Principal Importance

3.5. The area of woodland located adjacent to the site at the north and north-east (on the adjacent railway sidings), is shown as a deciduous woodland HPI on MAGIC's Priority Habitat Inventory.

3.6. A search of MAGIC's Priority Habitat Inventory also revealed the presence of four other HPI habitat types within 2km of the survey area. These HPIs are not found on or adjacent to the site: good quality semi-improved grassland, lowland heathland, woodpasture and parkland, and traditional orchard.

3.7. There are no records of veteran trees on site[9].

Habitats and Flora

3.8. The following habitats were identified on Site during the course of the field surveys. For full details refer to the Preliminary Ecological Appraisal (The Ecology Consultancy, 2019a) as brief summaries only are provided below:

- Buildings;
- Hardstanding;
- Ephemeral/short perennial;
- Introduced shrub;
- Scattered trees.

3.9. The habitat survey found there to have been little change to the habitats on site recorded during the previous Phase 1 habitat survey carried out in 2019 (The Ecology Consultancy, 2019a).

[9] https://ati.woodlandtrust.org.uk/tree-search/?v=1583362&ml=map&z=13&nwLat=51.44185494634243&nwLng=-0.8322949218749964&seLat=51.366680570365645&seLng=-0.5027050781249964

Buildings

3.10. There were ten buildings located across the site predominantly comprising old warehouses, workshops and temporary structures. They are described in more detail in the accompanying Bat Survey Report (The Ecology Consultancy, 2019b).

3.11. Two buildings were originally assessed as having potential for roosting bats (The Ecology Consultancy, 2019b). However, following bat presence/absence surveys, no bats were recorded roosting within the buildings. This habitat was therefore considered to be of **Negligible** Importance and is not considered further in this assessment.

Hardstanding

3.12. The majority of the site comprised areas of hardstanding around the existing buildings, used as car parking and machinery and vehicle storage. On the margins of the site there was occasional ephemeral and short vegetation. No notable plant species were recorded in this habitat area. This habitat is therefore considered to be of **Negligible Importance** and is not considered further in this assessment.

Ephemeral/short perennial

3.13. Around the margins of the site, adjacent to the boundary fences and buildings and on the edges of the car parks and walkways, there were tall ruderal and ephemeral species colonising these areas (Appendix 2, Photograph 11). Species present were those typically associated with enrichment, disturbance and/or waste ground including barren brome, herb-Robert, prickly sow-thistle, groundsel, bent species, cleavers, ribwort plantain, wall barley, creeping thistle, purple toadflax, colt's-foot, wood avens and goat's rue. The ephemeral/short perennial habitat is common and widespread in the local area, and is considered to have importance at the **Site** level only.

Scattered trees

3.14. Scattered trees had been planted on site, along the boundaries of the site, comprising semi-mature Leyland cypress, sycamore, poplar species, Norway maple, cherry species, silver birch and crack willow This habitat is common and widespread in the local area and is considered to have importance at the **Site** level only.

Introduced shrub

3.2 There were small areas of raised planters on site, but no noteworthy species present. Several butterfly bushes were located on the edges of the site, growing alongside the

boundary fence. This habitat is common and widespread in the local area and is considered to have importance at the **Site** level only.

Species

Bats

3.15. There are a total of 384 desk study records of eight species of bats within 2km of the site, returned in the GiGL and London Bat Group data searches including common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, Daubenton's, Leisler's, noctule, brown long-eared, and Natterer's, dating from 1984 to 2017. The closest records are for a brown long-eared from 2011 located approximately 0.29km west, and a noctule and a pipistrelle from 2012 located 0.34km east of the site. The most recent records date from 2017, and are for Daubenton's bat, located approximately 1.35km north-west of the site. There are seven historic or extant EPSM licences for bats within a 3km radius of the site.

3.16. During the Preliminary Ecological Appraisal and Preliminary Roost Assessment, three buildings (B4 and B5) were assessed as having low potential for roosting bats (The Ecology Consultancy, 2019a&b). However, following bat presence/absence surveys conducted in August 2019, no bats were recorded roosting within these buildings (The Ecology Consultancy, 2019b).

3.17. Three species, noctule, common and soprano pipistrelle were recorded during the survey carried out in August 2019 (The Ecology Consultancy, 2019b). A maximum of 16 passes were recorded throughout. No bats were seen to emerge or return to roost from the buildings. The majority of activity was recorded along the boundaries of the site, and on the adjacent railside SINC to the south west. A single common pipistrelle was seen travelling from west to east of the site, and it is considered likely that bats use the railway sidings adjacent to the south of the site and north of the site for foraging and commuting.

3.18. The habitats present on site are dominated by buildings and hardstanding. While the site itself does not contain habitats with high potential to support foraging and commuting bats, the boundary trees provide some connectivity between the site and nearby areas with good roosting and foraging value for bats. The site is also linked to suitable off-site foraging and commuting habitat via the railway lines adjacent to the south west and northern boundaries of the site, which would connect the site to

Hampstead Heath in the north-west, which contains habitats suitable for foraging and commuting bats.

3.19. In summary, the Site is located within an urbanised location and is subject to high levels of lighting through on site flood lighting. It is located adjacent to railside habitats and open spaces with suitable off-site commuting and foraging habitat, but the majority of the site itself is comprised of habitats with little suitability for foraging bats. However, due to its size and location, the site likely provides a supporting function to bats using the adjacent SINC habitats, the site is considered to be of **Local importance** for bats.

Birds

3.20. Several common bird species were observed during the habitat survey in 2019 (The Ecology Consultancy, 2019a) including feral pigeon and a pied wagtail carrying a food item. No active or disused nests were noted during the surveys in 2019 or 2021 (The Ecology Consultancy, 2019a). The data search returned records of several Species of Principal Importance including house sparrow, most recently in 2018 located approximately 340m north of the site. The London BAP species of common redpoll, herring gull, linnet, spotted flycatcher, dunnock, sand martin, starling and song thrush have also been recorded within 1km of the site.

3.21. There are scattered semi-mature trees on site, along the boundaries of the site, which have the potential to provide suitable nesting habitat for common breeding bird species. Gaps within the brickwork of the buildings may also provide suitable nesting habitats.

3.22. It is likely that breeding birds will occur on the site in low numbers and may use the buildings and boundary trees on site for nesting. As such, the site is considered to be of **Local importance** for birds.

Reptiles

3.23. The desk study returned no records of reptile within 1km of the site.

3.24. The adjacent railway line habitats have some potential to support common reptile species. However, there were no habitats present on site that have potential to provide cover or are considered suitable to support breeding or foraging reptiles. The tall ruderal vegetation was sparse and restricted to the margins of the site, and the areas of introduced shrub were not connected to the railway sidings habitats.

3.25. Considering the above, there is negligible potential for widespread reptiles to occur at the site and as such the site is considered to have **Negligible importance** for reptiles.

Future Baseline

3.26. In the absence of the proposed development, and as supported by the minimal habitat changes since the Phase 1 habitat survey in 2019 (The Ecology Consultancy, 2019b), it is considered that the baseline conditions of the Site are likely to remain broadly similar, with the potential for minor colonisation of ephemeral vegetation and introduced shrub. It is not considered that the overall importance of the site for wildlife has the potential to increase from the current assessment in the absence of the proposed development.

4. Impacts

IDENTIFICATION OF IMPACTS

4.1. A brief outline of potential impacts on important ecological features (i.e. those identified in Section 3 as Local or greater importance) arising from proposed development activities, but in the absence of embedded avoidance mitigation and compensation strategies, is set out below.

Table 4.1: Summary of activities and potential significant effects

Development Activity	Potential Significant Effects
CONSTRUCTION ACTIVITIES	
Habitat removal	• Loss of semi-mature scattered trees on boundaries of site. • Reduction in habitat for breeding birds, and foraging and commuting bats.
Habitat fragmentation	• Reduction in connectivity of linear habitats along the site boundaries, potentially providing dispersal corridors for certain species.
Noise, light and shading disturbance	• Temporary reduction in bat foraging and commuting activity. • Disturbance of breeding birds. • Disturbance from increased shading.
Disturbance from human activity	• Disturbance of breeding birds.
OPERATION ACTIVITIES	
Lighting	• Disturbance on bat commuting and foraging routes.
Human disturbance	• Disturbance of breeding birds • Increased recreation

Potential Impacts on Ecological Features

4.2. Construction Phase activities or changes likely to generate effects are:

- Minimal vegetation clearance from construction footprint;
- Airborne pollutants (i.e. dust) from construction site;
- Noise/vibrations from demolition/construction;
- Increased human activity;
- Light spill from construction site during evenings and early mornings; and
- Increased shading onto habitats from building.

4.3. Operational Phase activities or changes likely to generate effects are:

- Runoff of pollutants from developed site;
- Increased shading from buildings;
- Increased human activity including recreation; and
- Light spill during 24 hour operation.

4.4. It is considered that there are no non-standard activities/changes are likely to generate impacts.

Embedded Mitigation

4.5. All disturbance related impacts will be further managed through measures set out in a Construction Environmental Management Plan (CEMP) and thus any temporary impacts will be highly localised. The CEMP and construction requirements are yet to be finalised.

Habitat retention and enhancement

4.6. The Kentish Town City Farm, Gospel Oak Railsides and Mortimer Terrace Nature Reserve SBINC is located adjacent to the south-west, north and north-east of the site. No construction will take place in the SBINC, and there will be no loss of habitat within the SBINC. The south-west boundary of the site comprises a row of semi-mature scattered trees, predominantly comprising non-native species, which separate the SBINC from the works area. This will largely be retained, apart from long-term selective

removal of approximately 50% of these trees to replace them with native species to enhance the biodiversity of the site. Additionally, hedgerow understorey and grassland species will be planted along this boundary, to create an 'urban hedgerow of predominantly native shrubs, such as hawthorn, guelder rose and holly, and scrambling plants such as wild rose and honeysuckle'. This will help buffer developmental impacts and reduce the effects of any temporary changes in air quality or lighting during construction and operation on the adjacent SINC.

Habitat creation

4.7. New habitats will be created on site which will be informed by the surrounding area and Local Biodiversity Action Plan. The aim will be to create an urban extension to Hampstead Heath SBINC to the north and ensure that the developed site has a greater value to wildlife than the current site. A key principle of this and supported by the Kentish Town Planning Framework, is the 'Heathline', a sequence of green spaces and habitats created linking the site to Hampstead Heath SBINC in the north, and drawing inspiration from habitats within the SBINC and surrounding area.

4.8. Trees will be retained where possible, predominantly along the south west boundary of the site, where they will act as a buffer between the site and adjacent SINC. Trees and approximately 2,352m^2 of hedge and mixed shrub will also be planted at various locations on site, including infilling the existing tree line with native species to create an 'urban hedgerow' of value to birds, bats and other wildlife (Studio Egret West, 2021b,c).

4.9. Approximately 3,480m^2 of heathland habitat will be created in a number of locations on site, including a large central 'Heath Cliff' area. Plant choice will be inspired by the local landscape character, Sandy Heath SSSI, Hampstead Heath SBINC and the local BAP (Studio Egret West, 2021b,c).

4.10. Approximately 1,889m^2 of species rich acid grassland will be created at various locations throughout the site creating habitat of value to a variety of wildlife, in particular invertebrates (Studio Egret West, 2021b,c).

4.11. Approximately 1,207m^2 of flower rich perennial planting will be created through the site, providing an important foraging resource for birds, bats and invertebrates (Studio Egret West, 2021b,c).

4.12. Approximately 1,046m^2 of raingarden habitat will be created as part of the sites Sustainable Urban Drainage Systems, and adding additional foraging resource for wildlife (Studio Egret West, 2021b,c).

4.13. Approximately 250m^2 of woodland will be created on site as accessible green space. These areas are located within the north central area of the site and will be improved by tree and understorey planting to create better habitat structure and increase diversity (Studio Egret West, 2021b,c).

4.14. Roosting and nesting opportunities for bats and birds will be provided through the addition of bat and bird boxes and additional invertebrate habitat will be provided though the provision of log and brash piles and deadwood stumps (Studio Egret West, 2021b).

Biodiverse roofs

4.15. Approximately 3,720m^2 of biodiverse green roof will be created on the majority of new buildings. These are proposed to be a combination of acid grassland, heathland and open mosaic habitat, inspired by the local context and will provide highly valuable habitat for birds, bats and invertebrate species.

Commuting and foraging habitat

4.16. The retention and enhancement of the tree line along the south and west boundaries of the site will maintain habitat continuity and allow bats and other species to continue to commute along the adjacent SINC boundary. The planting on site, including additional linear tree and shrub planting, particularly along the 'Heathline', as well as biodiverse green roofs, and other habitats will provide additional commuting and foraging habitat.

Assessment of Impacts – Construction Phase

Non-statutory sites

Kentish Town City Farm, Gospel Oak Railsides and Mortimer Terrace Nature Reserve SBINC

4.17. The favourable conservation status of the SINC is dependant on limiting habitat loss, fragmentation and disturbance.

Habitat Loss

4.18. There will be no habitat loss within the SINC itself and therefore it is considered that the conservation status of the SINC would not be affected by the proposals as a result of habitat loss.

Fragmentation

4.19. Current proposals include the retention of the majority of the tree line along the south and west boundary of the site, with a long term plan to selectively remove approximately 50% of these trees to replace them with native tree and shrub species to enhance the biodiversity of the boundary and create an 'urban hedgerow'. This will retain and over time, enhance this feature as a wildlife corridor supporting dispersal of wildlife within and along the adjacent railway SINC to the south and west. Additional habitat created on site including heathland, linear tree lines, biodiverse green roofs and mixed shrub and scrub planting will create new corridors for wildlife through the site, and help to enhance connectivity between the SINC to the south and west, with the SINC to the north and north-east of the site.

4.20. Given that habitat connectivity of the SINC is being maintained and enhanced, it is considered that the important species using the site would not be adversely affected by habitat fragmentation and the conservation status of the SINC would not be significantly affected by the proposals as a result of habitat fragmentation.

Disturbance

4.21. Construction activities including clearance of the site, demolition of buildings, re-profiling and construction of new buildings and landscaping will generate noise impacts. Noise impacts are unlikely to disturb important species including birds given that the site is currently an active working yard, and is adjacent to a working railway in an urban area and the species using the site will be tolerant of noise.

4.22. The adjacent SINC habitats could be adversely affected by accidental run-off from the construction works. In line with best practice guidance, pollution prevention measures will be employed to ensure that spills and run-off are prevented.

4.23. The adjacent SINC habitats could be affected by dust generation at the construction phase. The habitats will be protected in accordance with BS 5837:2012 (BSI, 2012), thereby minimising impacts through dust creation during the construction phase of the development.

4.24. Potential shading impacts on the habitats within the adjacent non-statutory designated site of Kentish Town City Farm, Gospel Oak Railsides and Mortimer Terrace Nature Reserve SBINC, are likely to be insignificant, given that those areas of the SBINC to the north and north-east of the site include woodland habitats, which are likely to be already shaded habitats and should be resilient to any increased shading. The parts of the SBINC to the south of the site are not expected to be impacted by shading arising from the development of the site given their orientation relative to the site. The railway to the west of the site is expected to undergo some shading during the early morning and late evening according to initial shading plot analysis (GIA, 2021), but this stretch of the railway SINC is already shaded by the line of trees along this boundary of the site and is expected to be resilient to increased shading.

4.25. Security lighting at night will be directed only where required for safety/security reasons. Features with potential to support roosting birds or roosting, commuting and foraging bats, i.e. woodland, trees, scrub and SINC boundaries, will not be illuminated (SEW, 2021). The site is currently an active working yard with high levels of lighting from onsite flood lights (The Ecology Consultancy, 2019b), and it is not expected that lighting during construction will increase significantly from current levels. Accordingly, disturbance impacts to birds and bats from lighting during construction are considered unlikely.

Assessment

4.26. In combination, the significance of the effects on the conservation status of the Kentish Town City Farm, Gospel Oak Railsides and Mortimer Terrace Nature Reserve SBINC from construction are likely to be **negligible**.

Species

Bats

4.27. The favourable conservation status of the assemblage of bats using the site is dependent on the avoidance of killing/injury, presence of roosting features, adequate connectivity of commuting and foraging habitat and limited disturbance. The bat assemblage using the site is assessed as having Local importance due to the absence of a roost on site (The Ecology Consultancy, 2019b), and due to the supporting function that the site provides to bats using the adjacent SINC.

Roosting features

4.28. Bat surveys conducted in August 2019 (The Ecology Consultancy, 2019b) concluded the likely absence of roosting bats within buildings B4 and B5 on site. Therefore, the

removal of these buildings are not considered to have an effect on the conservation status of bats on the site. However, data from bat surveys should be considered to be valid for a period of 24 months, and if a significant period of time elapses between these surveys and works on site, it may be necessary to re-assess the buildings on site and their potential for roosting bats.

4.29. There were no trees on site assessed to have potential for roosting bats.

Commuting/*foraging* habitat

4.30. The assemblage of bats recorded on site during the emergence survey in 2019 (The Ecology Consultancy, 2019b) are generally tolerant of light. As bat species more sensitive to light (identified in the desk study) could use the site, artificial lighting of potential commuting and foraging features will be strictly controlled.

4.31. A range of new habitats including biodiverse green roofs, tree planting, herbaceous perennial planting, heathland and grassland planting using native species or species of known benefit to wildlife will be created. The linear tree line along the south and west boundary of the site will be retained during the construction stage and enhanced over time. In addition, alternative commuting/foraging habitat is present off-site in the surrounding area including the adjacent SINC habitats. Therefore, effects on the ability of bats to commute and forage during construction are unlikely.

Disturbance

4.32. Directional lighting will be used to ensure there is no illumination of features with potential to support roosting, commuting and foraging bats, i.e. adjacent SINCs and boundary trees. These measures will be ensured through the implementation of a lighting strategy. Accordingly disturbance impacts to bats during construction are not anticipated.

Effects

4.33. Overall, with the adoption of the measures listed above, it is anticipated that the construction phase of the proposed development will not result in a significant negative effect on the conservation status of bats.

Birds

4.34. The favourable conservation status of the assemblage of birds likely to be present at the site is dependent on the avoidance of killing/injury, the presence of suitable nesting habitat, access to foraging areas and avoidance of excessive disturbance.

Nesting and foraging habitat

4.35. The development proposals will involve the removal of buildings and structures which provide potential nesting habitat, as well as small areas if introduced shrub, and trees. It is likely that there will be a non-significant short-term adverse effect resulting from the reduction in the site's ability to support nesting birds during the period of the construction works. However, once development works are complete, the newly created habitats including new tree and scrub planting and bird boxes, as detailed in the Embedded Mitigation section, are expected to compensate any effect on the breeding birds at the site.

4.36. The site currently provides very limited foraging opportunities for breeding birds due to the site mainly comprising building and hardstanding. There are alternative and more optimal habitats providing foraging potential nearby in the adjacent SINC and surrounding area, and therefore it is not considered that the construction works will create a significant adverse effect on the ability of breeding birds to forage. The creation of new habitat areas, most notably the biodiverse roofs, grassland and heathland habitats and new tree planting will replace foraging opportunities for birds on site post-development.

Disturbance

4.37. Noise during construction, is unlikely to disturb the bird assemblage from the site and immediate vicinity of the site given that the site is in a noisy urban area with trains regularly running adjacent. Birds would be likely to return once the development is complete.

Effects

4.38. No significant adverse effects to breeding birds from removal of nesting habitat or disturbance are considered likely as a result of the proposed development.

Assessment of Impacts - Operational Phase

Non-statutory sites

Hampstead Heath SBINC

4.39. The favourable conservation status of Hampstead Heath SBINC during operation is dependant on impacts from increased recreation.

4.40. Recreational pressure is not likely to increase enough to cause significant effects to designated sites outside of the site boundary including Hampstead Heath SBINC, given that they are already located in a heavily urban area, subject to, and resilient to (e.g. with concrete and other well used paths, and habitats that are not sensitive to footfall) high numbers of visitors, where they are open to the public.

4.41. It is therefore considered that any adverse effects to the conservation status of the SINC as a result of operational activities would have **negligible** significance.

Kentish Town City Farm, Gospel Oak Railsides and Mortimer Terrace Nature Reserve SBINC

4.42. The favourable conservation status of the Kentish Town City Farm, Gospel Oak Railsides and Mortimer Terrace Nature Reserve SBINC during operation is dependant on impacts from lighting and shading.

4.43. The SINC is not open to public access, and therefore there will not be any increase in recreational activity within the SINC itself.

4.44. Security lighting at night will be directed only where required for safety/security reasons. Features with potential to support roosting birds or roosting, commuting and foraging bats, i.e. woodland, trees, scrub and SINC boundaries, will not be illuminated, or illumination will be minimised as far as possible. The site is currently an active working yard with high levels of lighting from on site flood lights, and it is not expected that lighting during operation of the new development will increase significantly from current levels. Accordingly, disturbance impacts to birds and bats from lighting during operation are considered unlikely.

4.45. Potential shading impacts on the habitats within the adjacent non-statutory designated site of Kentish Town City Farm, Gospel Oak Railsides and Mortimer Terrace Nature Reserve SBINC, are likely to be insignificant, as discussed in paragraph 4.23.

4.46. It is therefore considered that any adverse effects to the conservation status of the SINC as a result of operational activities would have **negligible** significance.

Species

Bats

4.47. The favourable conservation status of the assemblage of bats on site during operation is dependent on disturbance from lighting.

4.48. Lighting during the operational phase of the development will be designed to ensure lighting on site is sensitive to wildlife, especially bats. Mitigation measures will include directional lighting that only illuminates the areas it is needed with light spillage to other areas strictly controlled. These measures will be ensured through the implementation of a lighting strategy (SEW, 2021).

4.49. While the desk study produced records of some species (Myotis species) that are more sensitive to light and could use the site, the bat species that have been recorded on site are generally more tolerant of artificial light (Fure, 2006). Studies have shown that common and soprano pipistrelles, Leisler's bat, noctule bat and serotine bat will swarm around artificial light sources to feed on insects attracted to them (Bat Conservation Trust, 2009).

4.50. It is It is therefore considered that any adverse effects to the conservation status of bats as a result of operational activities would have **negligible** significance.

Birds

4.51. The favourable conservation status of the assemblage of birds on site is dependent on disturbance (from lighting, noise and human activity).

4.52. As for bats above, lighting will be strictly controlled on site through the implementation of a lighting strategy. Areas of habitat including trees and scrub will not be illuminated, with the possible exception of within residents' private gardens.

4.53. The operational stage of the development will result in increased noise generally from the activities of residents around the site. However, given the likely assemblage of birds will be tolerant of noise, effects are not anticipated.

4.54. Human movements and activities around the new development will increase. The likely bird assemblage will be resilient to general movements as they will take refuge in areas of tree canopies or dense scrub, and areas of habitat will be protected from human disturbance.

4.55. New nesting opportunities put in place as part of the development will increase the assemblage of birds on site's resilience to human disturbance.

4.56. It is therefore considered that that any adverse effects to the conservation status of birds as a result of operational activities would have **negligible** significance.

5. Mitigation and Residual Effects

5.1. In line with current best practice and the recognised mitigation hierarchy, all measures set out below are proportionate to the scale and nature of the proposals and the impacts identified.

Non-statutory Sites

5.2. To ensure that the potential adverse impacts of light spill onto the adjacent SINC habitats are mitigated, it is recommended that a sensitive lighting strategy which takes into account recommendations for ecology is designed and implemented for both the construction and operational phases. As the tree line on the south and west boundary of the site is due to be retained the impacts of light spill on this part of the SINC will already be partly mitigated.

5.3. It is concluded that the residual effects on Kentish Town City Farm, Gospel Oak Railsides and Mortimer Terrace Nature Reserve SBINC after mitigation will be **negligible**.

Bats

5.4. It is recommended that a sensitive lighting strategy is designed and implemented during both the construction and operational phases which will ensure maintenance of dark foraging areas and flight corridors for any bat species that could potentially be present, which are deterred by artificial lighting. As well as careful positioning and choice of lighting, this may include use of light shields and/or vegetation screens to reduce light spill and use of timers and movement sensors so that external lights are only on when absolutely necessary. Measure to help design an appropriate lighting strategy which takes into account the needs of is presented within the bat survey report (The Ecology Consultancy, 2019b), and within the Institute for Lighting Professionals Guidance Note on Bats and Lighting[10].

5.5. The creation of new habitats on site including biodiverse green roofs, tree, shrubs and heathland and grassland habitats will provide new suitable foraging habitat for bats, as invertebrate diversity could be enhanced on site. These areas should be kept dark at night where possible, with dark corridors connecting these habitats to offsite habitat.

[10] https://www.bats.org.uk/news/2018/09/new-guidance-on-bats-and-lighting

5.6. Overall, it is considered that the residual effect on bats after mitigation will be **negligible,** and there may be a beneficial effect on bats as a result of the development.

Birds

5.7. Given the legislative protection afforded to nesting birds under the Wildlife and Countryside Act 1981 (as amended), it will be necessary to avoid damage or destruction of nests, or disturbance of nesting birds. The removal of suitable nesting bird habitat will therefore be carried out September to February inclusive, to avoid any potential offences relating to breeding birds during their main bird breeding season (Newton et al., 2011). If works during the breeding season are unavoidable, then potential nesting habitat must be inspected shortly before work commences to identify any active birds' nests. Should they be present, the nest and a suitable buffer of habitat around it must be retained until the young have left the nest.

5.8. A CEMP should be prepared to ensure the above measures are implemented. This should be secured through a suitably worded planning condition.

5.9. The provision of bird boxes as recommended in the Preliminary Ecological Appraisal (The Ecology Consultancy, 2019a) report will also mitigate for any small-scale loss of nesting habitat.

5.10. Overall, it is considered that the residual effect on bats after mitigation will be **negligible**, and there may be a beneficial effect on birds as a result of the development.

6. Cumulative effects

6.1. This assessment has considered the potential cumulative 'construction' phase effects on ecology of the proposed development and other committed developments. In this regard, there are two schemes which overlap the proposed development site that are considered relevant:

- Regis Road Growth Area
- Gospel Oak/Haverstock Regeneration Area

6.2. The Regis Road Growth Area is a 7.1ha site with Draft Site Allocation for industry/employment re-provision, as well as residential, community and open space provision. The site is located approximately 60m from the southern boundary of the site to the south of the railway.

6.3. Gospel Oak/Haverstock Regeneration Area is a predominantly residential area comprised of six Council-owned estates identified as an investment priority area due to high levels of relative deprivation and significant housing challenges. This is a large area located to the west of the site between Haverstock Road and Gospel Oak Station.

6.4. Both of these sites are at the pre-application stage, with proposals for Gospel Oak/Haverstock Regeneration Area being drafted throughout 2021 (LBC November 2020).

6.5. Due to the location of these areas near to Murphy's Yard, and due to them being adjacent to the railway corridor and its associated SINC, these schemes have potential to cumulatively increase disturbance to wildlife within the local area. However, any applications will be accompanied by Preliminary Ecological Appraisal and any recommended further survey. Any loss of important habitat or features for protected species will require mitigation and compensation, such that no adverse effects are likely.

6.6. It is considered that the proposals for the developments detailed above in combination with the construction of the proposed development will not give rise to any significant cumulative effects on ecological receptors.

6.7. With careful planning, as with Murphy's Yard, these schemes have the potential to cumulatively result in benefits to local biodiversity

Summary of likely significant residual effects

6.8. Based on this assessment, no likely significant residual effects on features of nature conservation importance are predicted as a result of the proposed development.

7. Opportunities for Ecological Enhancement

7.1. Planning policy at the national and local level and strategic biodiversity partnerships encourage inclusion of ecological enhancements in development projects. Ecological enhancements can also contribute to green infrastructure and ecosystem services such as storm water attenuation and reducing the urban heat island effect. These measures will aim to result in net gains for biodiversity, and a formal Biodiversity Net Gain assessment has been completed and accompanies this report (The Ecology Consultancy, 2021).

7.2. Ecological enhancements as set out on the proposals plan include the following;

Biodiverse / Biosolar Roof

7.3. At the time of writing, it was understood that areas of biodiverse green roof would be included on sections of the new buildings. To demonstrate the highest feasible and viable sustainability standards in line with New London Plan Policies (GLA, 2021) and Kentish Town Planning Framework (Camden, 2020), it is recommended that a specification for a biodiverse roof be drawn up by a company with a proven track record in delivering these features in London. Any biodiverse green roof should support at least 25 plant species.

7.4. A biodiverse green roof would provide additional benefits such as protecting and prolonging the life of the roof membrane, reducing building energy use by insulating the building in winter and keeping it cooler in summer, providing a SuDS function by reducing storm water run-off from the roof, reducing the urban heat island effect and local air/noise pollution. Combining a biodiverse roof with PV panels (biosolar roof) would also provide further benefits, such as the cooling effect the vegetation has on the PV cells, increasing their productivity in hot weather, as well as resulting in a more efficient use of roof space.

7.5. The green roof should follow UK standards (GRO, 2014) and include additional habitat features such as deadwood, varying substrate depths and areas of bare rocky substrate. This will provide good habitat for a range of invertebrates and birds including London Biodiversity Action Plan (BAP) species.

7.6. It is understood that the green roofs proposed for Murphy's Yard will comprise a combination of acid grassland habitats, heathland and open mosaic habitat, all of which are local priority habitats, and well suited to rooftop conditions (SEW, 2021a,c).

Sustainable Drainage System (SuDS)

7.7. Areas of rain garden are proposed for the site, as part of the sites SuDS network. SuDS comprise a linked system of soft landscaping, green roofs, rain-water harvesting technologies including ponds, below ground drainage and porous surfacing which can be designed into a development to intercept and attenuate surface water and prevent flooding. Design of a SuDS would be appropriate to this development and should be considered as part of the site master plan. SuDS would also increase biodiversity, for example by providing a series of habitats for wildlife to use.

7.8. Relative to alternative measures, waterbodies provide high potential value to wildlife and are, therefore, recommended as a mechanism to enhance the importance of the Site for biodiversity. The creation of rainwater gardens, bird baths, reedbeds, bioswales, bioretention planters, attenuation ponds and ditches with marginal planting should be provided as part of proposals as part of the SuDS network. Any new water feature(s) should be created with naturalistic sinuous and sunken margins, with shallow edges and where possible, linked to an extended swale allowing an overflow during extended wet weather. To help establish vegetation, the pond margins and swale should be planted with marginal plants, using plug plants and a seed mix such as Emorsgate11 EM8 and EP1. Installation of a bench, interpretation board and/or pond dipping platform would allow the residents to appreciate the water feature and understand its intended purpose for biodiversity. Should there be safety concerns about open water, a post and rail fence (providing gaps for amphibians, mammals and birds to access the water) could be installed.

7.9. The inclusion of an effective SuDS system and ecological features such as rain gardens would help to prevent pollutant runoff onto the adjacent SINCs during periods of heavy rainfall. These features will also enhance the site for a range of wildlife including bats, birds and invertebrates and support the existing populations of wildlife in the neighbouring SINCs.

[11] https://wildseed.co.uk/mixtures/category/wetland-and-pond

Wildlife planting

7.10. Current proposed landscaping plans include areas of acid grassland habitat, flower rich perennial planting, raingardens, living roofs, hedgerow creation and tree planting. Wildlife planting should be integral to the soft landscape plans and in the creation of the proposed new neighbourhood parks. The proposed planting plans should include native species and/or species of recognised wildlife value[12]. The use of nectar-rich and berry producing plants will attract a wider range of insects, birds and mammals and continue to accommodate those already recorded at the site. Trees should be under-planted to improve structure and cover for wildlife.

7.11. As is proposed (SEW, 2021a,c), consideration should be given to creation of habitats which reflect the existing character of habitats found in Hampstead Heath, especially where the landscaping forms part of the proposed 'Heath Line' green corridor which will link Kentish Town to Hampstead Heath (Camden, 2020).

7.12. Native broadleaved woodland is a Habitat of Principal Importance (HPI), and Camden Biodiversity Action Plan (BAP) habitat. To best replicate this, woodland areas should be primarily composed of native species, and diversity of species should be high. Some feature non-natives could be included, but non-natives should make up less than 10% of cover. Fallen and standing deadwood including large dead branches/stems should be included to provide habitat for invertebrates, especially stag beetle which are on the Camden Biodiversity Action Plan[13]. When planting, a natural structure should be emulated, planting mixes of species rather than single species blocks; incorporate open spaces; and include scrubby or understorey species such as hawthorn, hazel, blackthorn, wild privet, guelder rose as appropriate to the site. Plant these along edges as well as within the main mix. Climbers can also be included to help provide a varied structure, such as honeysuckle or wild rose. Species such as bramble may come in naturally, and add to the variety of structure and habitat value.

7.13. Good horticultural practice should be utilised, including the use of peat-free composts, mulches and soil conditioners, native plants with local provenance and avoidance of

[12] For example The Royal Horticultural Society (RHS) Perfect for Pollinators Scheme https://www.rhs.org.uk/science/conservation-biodiversity/wildlife/encourage-wildlife-to-your-garden/plants-for-pollinators and the joint RHS/Wildlife Trust's Gardening With Wildlife In Mind Database http://www.joyofplants.com/wildlife/home.php

[13] https://ptes.org/wp-content/uploads/2016/11/Build-a-log-pile-for-stag-beetles.pdf

the use of invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

7.14. It is recommended that green walls or trellis structures are created to provide vertical opportunities for wildlife and maximise greenery. Recommended species include hop, wild honeysuckle, jasmine, and common ivy. These species provide nectar for bumblebees and potential nest sites for house sparrow. Honeysuckle is a known plant favoured by the garden tiger moth, a London BAP species. Hop supports buttoned snout moth, a nationally declining species for which London has become a stronghold.

7.15. The inclusion of orchards or community growing areas within the development would also contribute to achieving Camden BAP habitats.

Native hedgerow

7.16. The design includes areas of hedgerow planting and enhancement of the tree line along the boundaries of the site. Hedgerows should comprise a mix of at least five native plant species, such as holly, hawthorn, elder, guelder rose, dogwood, yew or blackthorn. New, native, species-rich hedgerows could also be planted along other boundaries and around other areas of planting. Native hedgerows would increase the amount of cover and foraging opportunities for wildlife. Enhancement of the tree line along the railway corridors would also improve this feature as a wildlife corridor, and act as a buffer to disturbance to the SINC.

Prairie Planting

7.17. A prairie style of border planting is recommended for areas of planting beds. It is an informal planting style, rich in pollen for insects, and uses bold blocks of plants and colours, and allows grasses and flowers to self-seed and colonise. It can be used in small areas and is a low maintenance style of planting. Shade tolerant species that can be used in a prairie style planting include woodruff, bladderwort, Hebe species, lungwort and yellow archangel. Further information on prairie style planting is available from the Royal Horticultural Society[14,15].

[14] https://www.rhs.org.uk/advice/profile?pid=1025
[15] https://www.rhs.org.uk/gardens/partner-gardens/articles/prairie-style-at-home

Provision of bird nesting and bat roosting opportunities

7.18. The provision of bird boxes would be appropriate at this site. Many different designs are available including boxes to support colonial species such as house sparrow, a Species of Principal Importance and Camden BAP species. Woodcrete bird boxes (Schwegler, 2011) are recommended as they are long lasting compared to wooden boxes, insulate occupants from extremes of temperature and condensation and are available in a broad range of designs.

7.19. The provision of artificial bat roosting opportunities will also be appropriate at this site. These may include bat boxes located on retained trees on the boundaries of the site, or incorporated into the design of the new buildings, adjacent to suitable foraging and commuting habitats for bats. Bat boxes should be positioned between 3-5m above ground level, facing south-east to south-west, in a location that will not be lit by artificial lighting. Models from Schwegler such as 1FF Flat Bat Box are appropriate for use on retained trees and do not require any cleaning. Integrated bat features such as Schwegler Bat Tube 1FR should be included within the designs of the new buildings, and are maintenance free. More information regarding the bat boxes are available through the Schwegler website[16].

Stag beetle loggeries

7.20. It is recommended that, where possible, such as in woodland areas, on biodiverse roofs, and hedgerows, that deadwood habitats are included on site including stag beetle loggeries[17], created using untreated timber, to provide habitat for invertebrates and fungi on site, including stag beetle which have been recorded within 1km of the site.

[16] www.schwegler-natur.de
[17] https://ptes.org/wp-content/uploads/2016/11/Build-a-log-pile-for-stag-beetles.pdf

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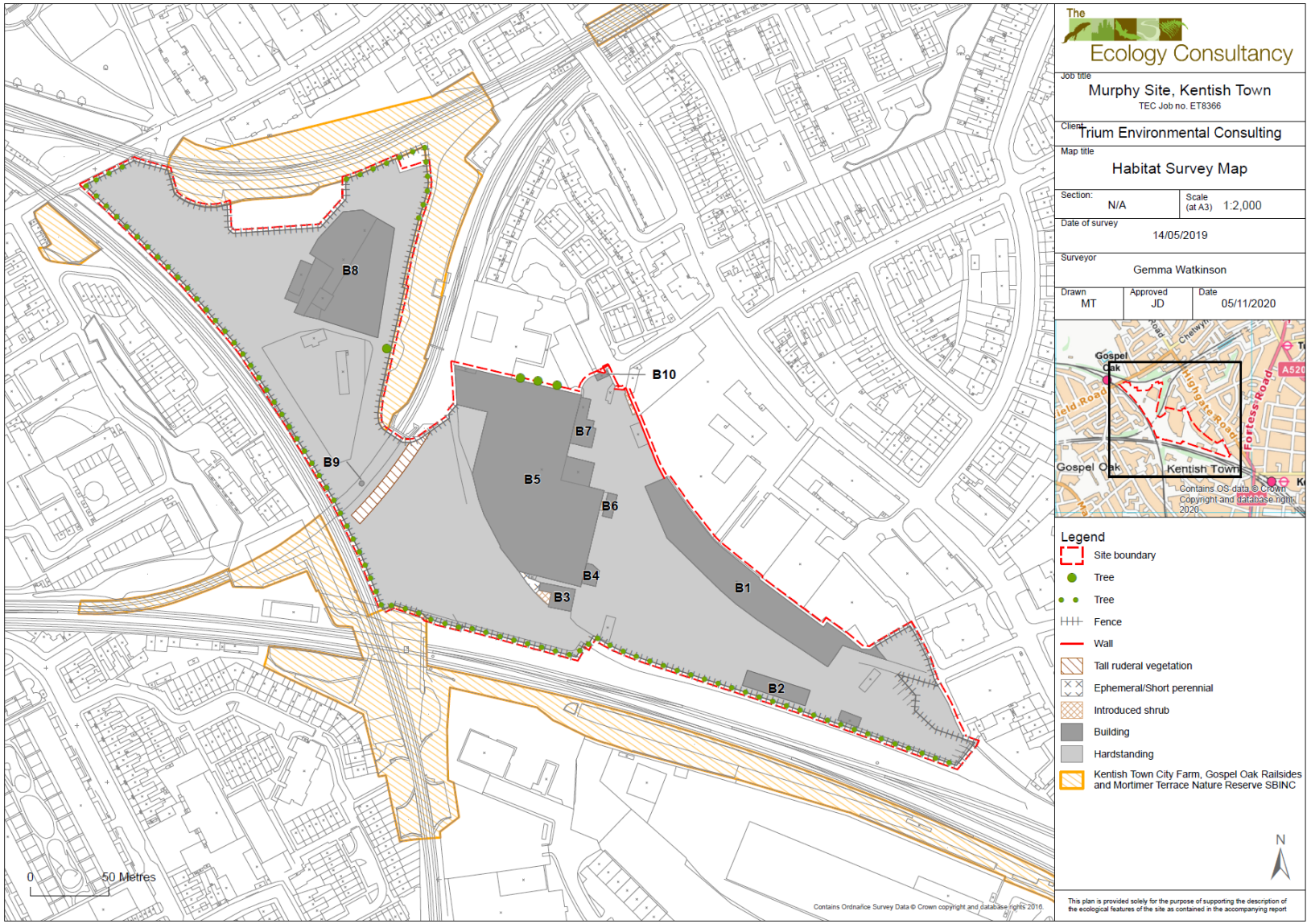
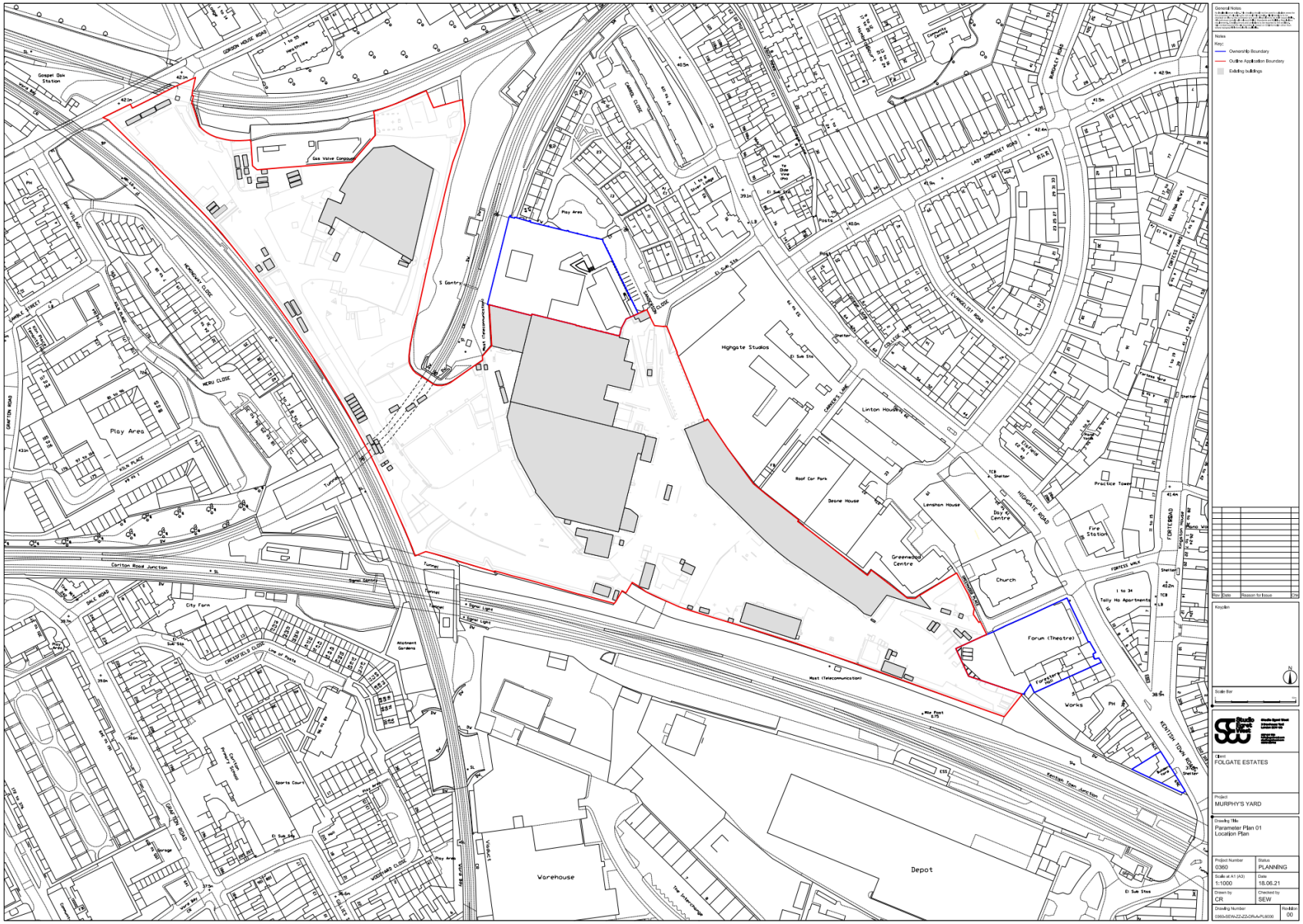
Appendix 1: Figures

Figure 1: Habitat Survey Map [18]



[18] the red line presented on Figure 2 below [i.e. the red line boundary figure] is the legally correct red line boundary. The red line shown in Figure 1 is indicative, and used for the purposes of habitat survey mapping. Importantly, the differences in the redline used are not material to the assessment of ecological effects

Figure 2: Red line boundary plan



Appendix 2: Legislation and Planning Policy

Important Notice: This section contains details of legislation and planning policy applicable in England and Wales only (i.e. not including Scotland, the Isle of Man, Northern Ireland, the Republic of Ireland or the Channel Islands) and is provided for general guidance only. While every effort has been made to ensure accuracy, this section should not be relied upon as a definitive statement of the law.

A EUROPEAN AND NATIONAL LEGISLATION AFFORDED TO SPECIES

The objective of the EC Habitats Directive[19] is to conserve the various species of plant and animal which are considered rare across Europe. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2017 (as amended) (formerly The Conservation of Habitats and Species Regulations 2010 (as amended)) and The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended).

The Wildlife and Countryside Act 1981 (as amended) is a key piece of national legislation which implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and implements the species protection obligations of Council Directive 2009/147/EC (formerly 79/409/EEC) on the Conservation of Wild Birds (EC Birds Directive) in Great Britain.

Since the passing of the Wildlife & Countryside Act 1981, various amendments have been made, details of which can be found on www.opsi.gov.uk. Key amendments have been made through the Countryside and Rights of Way (CRoW) Act (2000)

Other legislative Acts affording protection to wildlife and their habitats include:

- Deer Act 1991;
- Protection of Badgers Act 1992;
- Wild Mammals (Protection) Act 1996;
- Countryside and Rights of Way (CRoW) Act 2000;
- Natural Environment & Rural Communities (NERC) Act 2006; and
- Environment (Wales) Act 2016.

Species and species groups that are protected or otherwise regulated under the aforementioned domestic and European legislation, and that are most likely to be affected by development activities, include herpetofauna (amphibians and reptiles), badger, bats, birds,

[19] Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora

dormouse, invasive plant species, otter, plants, red squirrel, water vole and white clawed crayfish.

Explanatory notes relating to species protected under The Conservation of Habitats and Species Regulations 2017 (as amended), which includes smooth snake, sand lizard, great crested newt, natterjack toad, all bat species, otter, dormouse and some plant, invertebrate and fish species, are given below. **These should be read in conjunction with the relevant species sections that follow.**

- In the Habitats Directive, the term 'deliberate' is interpreted as being somewhat wider than intentional and may be thought of as including an element of recklessness.
- The Conservation of Habitats and Species Regulations 2017 (as amended) does not define the act of 'migration' and therefore, as a precaution, it is recommended that short distance movement of animals for e.g. foraging, breeding or dispersal purposes are also considered where relevant.
- In order to obtain a European Protected Species Mitigation (EPSM) licence, the application must demonstrate that it meets all of the following three 'tests': i) the action(s) are necessary for the purpose of preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequence of primary importance for the environment; ii) that there is no satisfactory alternative and iii) that the action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

Plants & Fungi

All wild plants are protected under the Wildlife and Countryside Act 1981 (as amended). This makes it an offence for an 'unauthorised' person to intentionally uproot wild plants. An authorised person can be the owner of the land on which the action is taken, or anybody authorised by them.

Certain rare species of plant and fungi, for example some species of orchid, red-tipped cudweed *Filago lutescens*, spiked speedwell *Veronica spicata*, holly-leaved naiad *Najas marina,* field cow wheat *Melampyrum arvense* and sandy stilt puffball *Battarraea phalloides* are also fully protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended) in respect of Section 13. This prohibits any person:

- Intentionally picking, uprooting or destruction of any wild Schedule 8 species

- Selling, offering or exposing for sale, or possessing or transporting for the purpose of sale, any wild live or dead Schedule 8 plant species or part thereof.

In addition to the UK legislation outlined above, several plant species, such as slender naiad *Najas flexilis*, fen orchid *Liparis loeselii* and early gentian *Gentianella anglica*, are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2017 (as amended). These are species of European importance. Regulation 45 makes it an offence to:

- Deliberately pick, collect, cut, uproot or destroy a wild Schedule 5 species
- Be in possession of, or control, transport, sell or exchange, or offer for sale or exchange any wild live or dead Schedule 5 species or anything derived from such a plant.

How is the legislation pertaining to protected plants liable to affect development works?

A European Protected Species Mitigation (EPSM) Licence issued by the relevant countryside agency (e.g. Natural England, Natural Resources Wales) will be required for works liable to affect species of plant listed under The Conservation of Habitats and Species Regulations 2017 (as amended). The licence is to derogate from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Invasive Plant Species

Under Section 14 (2) of the Wildlife and Countryside Act 1981 (as amended), it is an offence to plant or otherwise cause to grow in the wild any species of plant listed on Part II of Schedule 9. Schedule 9 plant species include Japanese knotweed *Fallopia japonica,* giant hogweed *Heracleum mantegazzianum* and Himalayan balsam *Impatiens glandulifera.* In the main, Schedule 9 species are those that are already established in the wild, but which continue to pose a threat to the conservation of native biodiversity and habitats, such that further releases should be regulated.

How is the legislation pertaining to invasive plants liable to affect development works?

Although it is not an offence to have these plants on your land *per se*, it is an offence to *cause* these species to grow in the wild. Therefore, if they are present on site and development activities (for example movement of spoil, disposal of cut waste or vehicular movements) have the potential to cause the further spread of these species to new areas, it will be necessary to ensure appropriate measures are in place to prevent this happening prior to the commencement of works.

As a rule, planting on managed land (private gardens, estates and amenity planting, for example), where it is expected that the spread of the plant will be kept under control, and where the plant will not have an adverse impact, is not regarded as planting in the wild and thus would not constitute an offence. However, where the plant is inadequately managed or contained and is likely to have an adverse effect, it may. Whether or not planting is an offence should therefore be judged on a case by case basis, taking into account the potential impacts on habitats and native flora and fauna, and the existence or extent of management practices to be employed[20].

Plants: Injurious Weeds

Under the Weeds Act 1959 any land owner or occupier may be required prevent the spread of certain 'injurious weeds' such as spear thistle *Cirsium vulgare*, creeping thistle *Cirsium arvense*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, and common ragwort *Senecio jacobaea* onto agricultural land, particularly grazing areas or land which is used to produce conserved forage. It is a criminal offence to fail to comply with a notice requiring such action to be taken. The Ragwort Control Act 2003 establishes a ragwort control code of practice[21] as common ragwort is poisonous to horses and other livestock. This code provides best practice guidelines on how to prevent the spread of this species but is not legally binding.

B EUROPEAN AND NATIONAL LEGISLATION AFFORDED TO HABITATS

Statutory Designations: National

Nationally important areas of special scientific interest, by reason of their flora, fauna, or geological or physiographical features, are notified by the countryside agencies as statutory Sites of Special Scientific Interest (SSSIs) under the National Parks and Access to the Countryside Act 1949 and latterly the Wildlife & Countryside Act 1981 (as amended). As well as underpinning other national designations (such as National Nature Reserves which are declared by the countryside agencies under the same legislation), the system also provides statutory protection for terrestrial and coastal sites which are important within a European context (Natura 2000 network) and globally (such as Wetlands of International Importance) - see subsequent sections for details of these designations. Improved provisions for the

[20] Defra (2010) Guidance on Section 14 of the Wildlife and Countryside Act, 1981. http://archive.defra.gov.uk/wildlife-pets/wildlife/management/non-native/documents/section-14-guidance.pdf

[21] Defra (2004) Code of Practice on How to Prevent the Spread of Ragwort: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69264/pb9840-cop-ragwort.pdf

protection and management of SSSIs have been introduced by the Countryside and Rights of Way Act 2000.

The Wildlife & Countryside Act 1981 (as amended) also provides for the making of Limestone Pavement Orders, which prohibit the disturbance and removal of limestone from such designated areas, and the designation of Marine Nature Reserves, for which byelaws must be made to protect them.

Statutory Designations: International

Special Protection Areas (SPAs), together with Special Areas of Conservation (SACs) form the Natura 2000 network. The Government is obliged to identify and classify SPAs under the EC Birds Directive (Council Directive 2009/147/EC (formerly 79/409/EEC)) on the Conservation of Wild Birds). SPAs are areas of the most important habitat for rare (listed on Annex I of the Directive) and migratory birds within the European Union. Protection afforded SPAs in terrestrial areas and territorial marine waters out to 12 nautical miles (nm) is given by The Conservation of Habitats & Species Regulations 2017 (as amended). The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a mechanism for the designation and protection of European offshore marine sites or EMS (SPAs and SACs) in UK offshore waters (from 12-200 nm).

The Government is obliged to identify and designate SACs under the EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora). These are areas which have been identified as best representing the range and variety of habitats and (non-bird) species listed on Annexes I and II to the Directive within the European Union. SACs in terrestrial areas and territorial marine waters out to 12 nautical miles are protected under The Conservation of Habitats & Species Regulations 2017 (as amended). The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a mechanism for the designation and protection of European offshore marine sites or EMS (SACs and SPAs) in UK offshore waters (from 12-200 nm).

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and wise use, in particular recognizing wetlands as ecosystems that are globally important for biodiversity conservation. Wetlands can include areas of marsh, fen, peatland or water

and may be natural or artificial, permanent or temporary. Wetlands may also incorporate riparian and coastal zones adjacent to the wetlands. Ramsar sites are underpinned through prior notification as Sites of Special Scientific Interest (SSSIs) and as such receive statutory protection under the Wildlife & Countryside Act 1981 (as amended) with further protection provided by the Countryside and Rights of Way (CRoW) Act 2000. Policy statements have been issued by the Government highlighting the special status of Ramsar sites. This effectively extends the level of protection to that afforded to sites which have been designated under the EC Birds and Habitats Directives as part of the Natura 2000 network (e.g. SACs & SPAs).

Statutory Designations: Local

Under the National Parks and Access to the Countryside Act 1949 Local Nature Reserves (LNRs) may be declared by local authorities after consultation with the relevant countryside agency. LNRs are declared for sites holding special wildlife or geological interest at a local level and are managed for nature conservation, and provide opportunities for research and education and enjoyment of nature.

Non-Statutory Designations

Areas considered to be of local conservation interest may be designated by local authorities as a Wildlife Site, under a variety of names such as Local Wildlife Sites (LWS), County Wildlife Sites (CWS), Listed Wildlife Sites (LWS), Local Nature Conservation Sites (LNCS), Sites of Biological Importance (SBIs), Sites of Importance for Nature Conservation (SINCs), or Sites of Nature Conservation Importance (SNCIs). The criteria for designation may vary between counties.

Together with the statutory designations, these are defined in Local Plans/Development Frameworks under the Town and Country Planning system and are a material consideration when planning applications are being determined. The level of protection afforded to these sites through local planning policies and development frameworks may vary between counties.

Local Geological Sites (previously known as Regionally Important Geological and Geomorphological Sites or RIGS) are the most important places for geology and geomorphology outside land holding statutory designations such as SSSIs. Locally-

developed criteria are used to select these sites, according to their value for education, scientific study, historical significance or aesthetic qualities. As with local Wildlife Sites, Local Geological Sites are a material consideration when planning applications are being determined.

The Hedgerow Regulations 1997

The Hedgerow Regulations 1997 are intended to protect 'important' countryside hedgerows from destruction or damage. Under the 'Wildlife and Landscape' criteria of the Regulations, a hedgerow is considered important if (a) it has existed for 30 years or more; and (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations.

Under the Regulations, it is against the law to remove or destroy important hedgerows without permission from the local planning authority. Hedgerows on or adjacent to common land, village greens, SSSIs (including all terrestrial SACs, NNRs and SPAs), LNRs, land used for agriculture or forestry and land used for the keeping or breeding of horses, ponies or donkeys are covered by these regulations. Hedgerows *'within or marking the boundary of the curtilage of a dwelling-house'* are not.

C PLANNING POLICY

National Planning Policy Framework

The National Planning Policy Framework replaced PPS9 and emphasises the need for sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and priority species (see Section D below). An emphasis is also made for the need for ecological networks via preservation, restoration and re-creation. The protection and recovery of priority species is also listed as a requirement of planning policy. In determining planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from adverse harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; 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 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.

REGIONAL PLANNING POLICY

The London Plan is the statutory Spatial Development Strategy for Greater London prepared by the Mayor of London in accordance with the Greater London Authority Act 1999 (as amended). Chapter 8 includes nine policies relating to the protection, enhancement, creation, promotion and management of biodiversity and green infrastructure in support of the London Environment Strategy (GLA, 2018). Four Green Infrastructure and Natural Environment policies (G1, G5, G6 & G7) are detailed below, which should be translated into individual Borough Local Plans for enforcement by Local Planning Authorities (LPAs). In some cases, the GLA will become involved in the determination of development proposals alongside the LPA, at which point these policies will override the Borough Local Plan policies.

Policy G1 Green infrastructure

D Development proposals should incorporate appropriate elements of green infrastructure that are integrated into London's wider green infrastructure network.

Policy G5 Urban greening

A Major development proposals should contribute to the greening of London by including urban greening as a fundamental element of site and building design, and by incorporating measures such as high quality landscaping (including trees), green roofs, green walls and nature-based sustainable drainage.

B Boroughs should develop an Urban Greening Factor (UGF) to identify the appropriate amount of urban greening required in new developments. The UGF should be based on the factors set out in Table 8.2, but tailored to local circumstances. In the interim, the Mayor recommends a target score of 0.4 for developments that are predominately residential, and a target score of 0.3 for predominately commercial development (excluding B2 and B8 uses).

C Existing green cover retained on site should count towards developments meeting the interim target scores set out in (B) based on the factors set out in Table 8.2.

Policy G6 Biodiversity and access to nature

A Sites of Importance for Nature Conservation (SINCs) should be protected.

C Where harm to a SINC is unavoidable, and where the benefits of the development proposal clearly outweigh the impacts on biodiversity, the following mitigation hierarchy should be applied to minimise development impacts:

1) avoid damaging the significant ecological features of the site

2) minimise the overall spatial impact and mitigate it by improving the quality or management of the rest of the site

3) deliver off-site compensation of better biodiversity value.

D Development proposals should manage impacts on biodiversity and aim to secure net biodiversity gain. This should be informed by the best available ecological information and addressed from the start of the development process.

E Proposals which reduce deficiencies in access to nature should be considered positively

Policy G7 Trees and woodlands

C Development proposals should ensure that, wherever possible, existing trees of value are retained. If planning permission is granted that necessitates the removal of trees there should be adequate replacement based on the existing value of the benefits of the trees removed, determined by, for example, i-tree or CAVAT or another appropriate valuation system. The planting of additional trees should generally be included in new developments – particularly large-canopied species which provide a wider range of benefits because of the larger surface area of their canopy.

London's Environment Strategy (2018)

The London Environment Strategy set out an ambitious vision for improving London's environment for the benefit of all Londoners. This is the first strategy to bring together approaches to every aspect of London's environment, integrating the following areas:

- Air quality
- Green infrastructure

- Climate change mitigation and energy
- Waste
- Adapting to climate change
- Ambient noise
- Low carbon circular economy

The overall aim of the strategy is for London to be the world's greenest global city by making it greener, clearer and ready for the future. The London Environment Strategy combines multiple previous strategies including the Biodiversity Strategy (GLA, 2002).

Policy 5.2.1 Protect a core network of nature conservation sites and ensure a net gain in biodiversity

Proposal 5.2.1.a The London Plan includes policies on the protection of Sites of Importance for Nature Conservation (SINCs) and Regionally Important Geological Sites (RIGS)

Proposal 5.2.1.b The Mayor will develop a biodiversity net gain approach for London, and promote wildlife-friendly landscaping in new developments and regeneration projects

Local Plan / Local Development Framework

The Camden Council Local Plan (2017) deals with matters of strategic importance for Camden and Kentish Town. Key chapters include Chapter 6 – Protecting Amenity, in particular Policy A3 for the protection, enhancement and management of biodiversity, and Chapter 8 – Sustainability and Climate change, in particular Policy CC2.

Policy A3: Protection, enhancement and management of biodiversity

The Council will protect and enhance sites of nature conservation and biodiversity. We will:

a. designate and protect nature conservation sites and safeguard protected and priority habitats and species;

b. grant permission for development unless it would directly or indirectly result in the loss or harm to a designated nature conservation site or adversely affect the status or population of priority habitats and species;

c. seek the protection of other features with nature conservation value, including gardens, wherever possible;

d. assess developments against their ability to realise benefits for biodiversity through the layout, design and materials used in the built structure and landscaping elements of a proposed development, proportionate to the scale of development proposed;

e. secure improvements to green corridors, particularly where a development scheme is adjacent to an existing corridor;

f. seek to improve opportunities to experience nature, in particular where such opportunities are lacking;

g. require the demolition and construction phase of development, including the movement of works vehicles, to be planned to avoid disturbance to habitats and species and ecologically sensitive areas, and the spread of invasive species;

h. secure management plans, where appropriate, to ensure that nature conservation objectives are met; and

i. work with The Royal Parks, The City of London Corporation, the London Wildlife Trust, friends of park groups and local nature conservation groups to protect and improve open spaces and nature conservation in Camden.

Trees and vegetation

The Council will protect, and seek to secure additional, trees and vegetation.

We will:

j. resist the loss of trees and vegetation of significant amenity, historic, cultural or ecological value including proposals which may threaten the continued wellbeing of such trees and vegetation;

k. require trees and vegetation which are to be retained to be satisfactorily protected during the demolition and construction phase of development in line with BS5837:2012 'Trees in relation to Design, Demolition and Construction' and positively integrated as part of the site layout;

l. expect replacement trees or vegetation to be provided where the loss of significant trees or vegetation or harm to the wellbeing of these trees and vegetation has been justified in the context of the proposed development;

m. expect developments to incorporate additional trees and vegetation wherever possible.

Policy CC2: Adapting to Climate Change

The Council will require development to be resilient to climate change. All development should adopt appropriate climate change adaptation measures such as:

a. the protection of existing green spaces and promoting new appropriate green infrastructure;

b. not increasing, and wherever possible reducing, surface water runoff through increasing permeable surfaces and use of Sustainable Drainage Systems;

c. incorporating bio-diverse roofs, combination green and blue roofs and green walls where appropriate; and

d. measures to reduce the impact of urban and dwelling overheating, including application of the cooling hierarchy.

Any development involving 5 or more residential units or 500 sqm or more of any additional floorspace is required to demonstrate the above in a Sustainability Statement.

Sustainable design and construction measures

The Council will promote and measure sustainable design and construction by:

e. ensuring development schemes demonstrate how adaptation measures and sustainable development principles have been incorporated into the design and proposed implementation;

f. encourage new build residential development to use the Home Quality Mark and Passivhaus design standards;

g. encouraging conversions and extensions of 500 sqm of residential floorspace or above or five or more dwellings to achieve "excellent" in BREEAM domestic refurbishment; and

h. expecting non-domestic developments of 500 sqm of floorspace or above to achieve "excellent" in BREEAM assessments and encouraging zero carbon in new development from 2019.

D BIODIVERSITY ACTION PLANs (BAPs)

The UK BAP was published in 1994 to comply with obligations under the Convention on Biological Diversity (The Biodiversity Treaty, 1992). It described the UK's biological resources and committed to developing detailed plans to conserve these recourses i.e. Habitat Action Plans and Species Action Plans. Running parallel to this, planning authorities promoted habitat and species conservation at a county and district/borough level through their development of Local BAPs (LBAPs). The aims and objectives of some of these LBAPs (most notable those at county level) are simply to reflect national targets for habitats and species of principal importance, translate them at a local level and to integrate the needs of species and habitats within landscape-scale delivery.

Since the publication of these BAPs, new strategies and frameworks have resulted in the development of biodiversity issues and changes in the terminology used to describe these habitats and species in England. This has been brought about through the replacement of the previous England Biodiversity Strategy with *Biodiversity 2020: A Strategy For England's*

Wildlife and Ecosystem Services (2011) and the replacement of the UK BAP itself with the *UK Post-2010 Biodiversity Framework* (2012). All previous UK BAP species and habitats are still of material consideration in the planning process but are now referred to as priority habitats and species (as described under the NERC Act above).

The distribution of BAP/priority habitats has been used to identify Biodiversity Opportunity Areas at a regional scale through Biodiversity Strategies/Partnerships. They represent a strategic landscape scale approach to habitat creation, restoration or expansion. They represent regional priority areas of opportunity to restore and create BAP/priority habitat. They are therefore a spatial representation of targets for BAP/priority habitat and are areas of opportunity, not constraint.

Many local authorities in the UK have also produced a local Biodiversity Action Plan (LBAP) at the County or District level. The Camden Biodiversity Action Plan (Camden, 2017) is based on the UK list of Species and Habitats of Principal Importance. It encourages the inclusion of biodiversity to help mitigate the effects of climate change through living roofs, landscaping schemes, gardens, tree planting and urban greening projects. Priority habitats and species of relevance to this report are:

- Green roofs
- Green corridors
- Public parks/ amenity grass
- Woodland
- Acid grassland
- Ponds and standing water
- Meadows
- Orchards
- Bats
- Hedgehog
- Butterflies
- Stag beetle
- Sparrows
- Swifts

- Slow worm

The Ecology Consultancy is part of the Temple Group.

Making places better for people and wildlife

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