

MKA
ECOLOGY

Ecological Impact Assessment

Downhills Park Tennis Courts, Haringey

Site	Downhills Park Tennis Courts, Haringey
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Declaration of compliance



The information which we have provided is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's (CIEEM) Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

MKA Ecology Ltd is a CIEEM Registered Practice. This means that MKA Ecology Ltd are formally recognised for high professional standards, working at the forefront of our profession.

This Ecological Impact Assessment has been undertaken in accordance with British Standard 42020:2013 "Biodiversity, Code of practice for planning and development", CIEEM's 'Guidelines for Ecological Impact Assessment (CIEEM, 2018) and CIEEM's 'Guidelines for Ecological Report Writing' (CIEEM, 2017a). A review of this report against CIEEM's EcIA Checklist is provided in Appendix 4.

Validity of data

Unless stated otherwise the information provided within this report is valid for a maximum period of 24 months from the date of surveys. If works at the site have not progressed by this time an updated site visit may be required in order to determine any changes in site composition and ecological constraints.

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1. EXECUTIVE SUMMARY

This Ecological Impact Assessment was commissioned by Haringey Council to provide information on the potential impacts of the proposed development at Downhills Park Tennis Courts, Haringey. The Preliminary Ecological Appraisal survey that has informed this Ecological Impact Assessment was carried out in October 2022.

The current proposals involve the resurfacing and development of two compliant tennis courts in the footprint of the non-compliant courts currently present at the Site. Two new mini courts, new fencing and a lighting scheme will also be implemented in association with the courts.

A number of ecological features are present that require specific measures to be put in place during the construction and operational phases of the development in order to ensure compliance with legislation and policy. These are regularly encountered ecological constraints with standardised mitigation measures. All appropriate mitigation measures will be detailed in full within a Construction Environmental Management Plan (CEMP). Features that require mitigation works are:

- *Designated sites*: a number of mitigation measures will be put in place during the construction phase of the development so as to ensure that the integrity of Downhills Park Site of Importance for Nature Conservation (SINC) is maintained. **No residual effects.**
- *Invasive species*: Sensitive removal of all instances of invasive plant species, with arisings disposed of as controlled waste. **Long-term minor positive effect.**
- *Invertebrates*: Any deadwood clearance deemed necessary will be undertaken under ecological supervision and undertaken in line with a stag beetle management plan. **Long-term minor positive effect.**
- *Reptiles*: Any vegetation clearance required should be undertaken in a staged, directional manner. **No residual effects.**
- *Breeding birds*: Ground and vegetation clearance works will avoid the breeding bird season (March to August inclusive) or be preceded by a nesting bird check conducted by an experienced ornithologist. Bird boxes will be installed on retained trees. **Long-term minor positive effect.**
- *Roosting bats*: Standing deadwood was identified as having low potential to support roosting bats. This feature is not due to be impacted by works. Should this change, a 5m buffer will be implemented to protect the tree from accidental disturbance. Bat boxes will be installed on retained trees. **Long-term minor positive effect.**
- *Foraging and commuting bats*: Develop sensitive lighting scheme for construction and operational phases of development to protect and maintain the functionality of the commuting and foraging value provided by the existing habitats. **No residual effects.**
- *Hedgehog*: Checks to be undertaken prior to clearance of suitable habitats. **No residual effects.**

Following the issue of the National Planning Policy Framework (NPPF), all planning decisions should aim to maintain and enhance, restore or add to biodiversity and geological conservation interests. A number of ecological enhancements will be implemented including the installation of bird and bat boxes and the provision of deadwood features. This will ensure that biodiversity gains are delivered at Downhills Park Tennis Courts, Haringey.

2. INTRODUCTION

2.1. Aims and scope of Ecological Impact Assessment

In September 2022 MKA Ecology Ltd was commissioned by Haringey Council to undertake an Ecological Impact Assessment (EclA) for works to the existing tennis courts and construction of new mini courts.

The aims of this assessment are:

- To establish baseline ecological conditions at the Site;
- To identify and describe all potentially significant ecological effects associated with the proposed development;
- To set out the mitigation measures required to ensure compliance with nature conservation legislation and to address any potentially significant ecological effects;
- To identify how mitigation measures will be secured;
- To provide an assessment of the significance of any residual effects;
- To identify appropriate enhancement measures; and
- To set out any requirements for post-construction monitoring.

2.2. Site description and context

The survey area and landscape context are shown on the map in Figure 1, at the end of this section. Within this report this area is referred to as the Site or Downhills Park Tennis Courts, Haringey. The Site sits within Downhills Park (centred on National Grid Reference TQ 32592 89616), and falls under the authority of Haringey Council. The Site comprises large sections of regularly managed grassland, intersected by pedestrian footpaths, lines of mature and semi-mature trees and areas of introduced shrub planting. The tennis courts are located in the southern portion of the Site.

The Site comprises part of Downhills Park Site of Importance for Nature Conservation (SINC). The Site is bound to the south and west by the wider Downhills Park SINC, which comprises extensive areas of grassland, lines of trees, introduced shrubs and small woodland blocks. The Site is immediately bound to the north and east by Downhills Park Road. Residential and commercial development is present in the surrounding landscape, with Lordship Recreational Ground, another SINC, located just beyond Downhills Park Road.

2.3. Proposed development

The current proposals involve the resurfacing and development of two compliant tennis courts in the footprint of the non-compliant courts currently present at the Site. Two new mini courts, new fencing and a lighting scheme will also be implemented in association with the courts.

2.4. Legislation and planning policy

This EclA has been made with reference to relevant wildlife legislation and planning policy. Relevant legislation considered within the scope of this document includes the following:

- The Environment Act 2021;
- The Wildlife and Countryside Act 1981 (as amended);
- The Conservation of Habitats and Species Regulations 2017 (as amended);
- Natural Environment and Rural Communities (NERC) Act 2006;
- The Countryside and Rights of Way (CROW) Act 2000;
- Protection of Badgers Act 1992; and
- Wild Mammals (Protection) Act 1996.

Further information is provided in Appendix 1, including levels of protection granted to the species considered in Section 3.3

In addition to obligations under wildlife legislation, the revised National Planning Policy Framework (NPPF) updated on 20th July 2021 requires planning decisions to contribute to conserving and enhancing the local environment.

The London Borough of Haringey has produced an adopted Local Plan Strategic Policies 2013-2026 document which covers the below policies relating to biodiversity and habitat conservation. In particular Policy SP13: Open Space and Biodiversity states:

“... All development shall protect and improve sites of biodiversity and nature conservation, including private gardens through its:

- *Contribution to wildlife and ecological habitats and, where possible, include green and brown roofs, rainwater harvesting, green walls, bird and bat nesting/roosting opportunities;*
- *Protection, management and maintenance of existing trees and the planting of new trees where appropriate; and*
- *Protection, enhancement and creation of Sites of Importance for Nature Conservation (SINCs) and Local Nature Reserves (LNRs).*

A new Local Plan is currently consultation and is proposed to run from 2022 to 2037.

Additionally, given that the Site is located within London, consideration of the London Plan 2021 has also been given. The new London Plan contains a number of policies relating to biodiversity, a brief summary of which are set out below:

- Policy G1 Green infrastructure;
- Policy G5 Urban greening;
- Policy G6 Biodiversity and access to nature;
- Policy G7 Trees and woodlands; and
- Policy G8 Food growing.

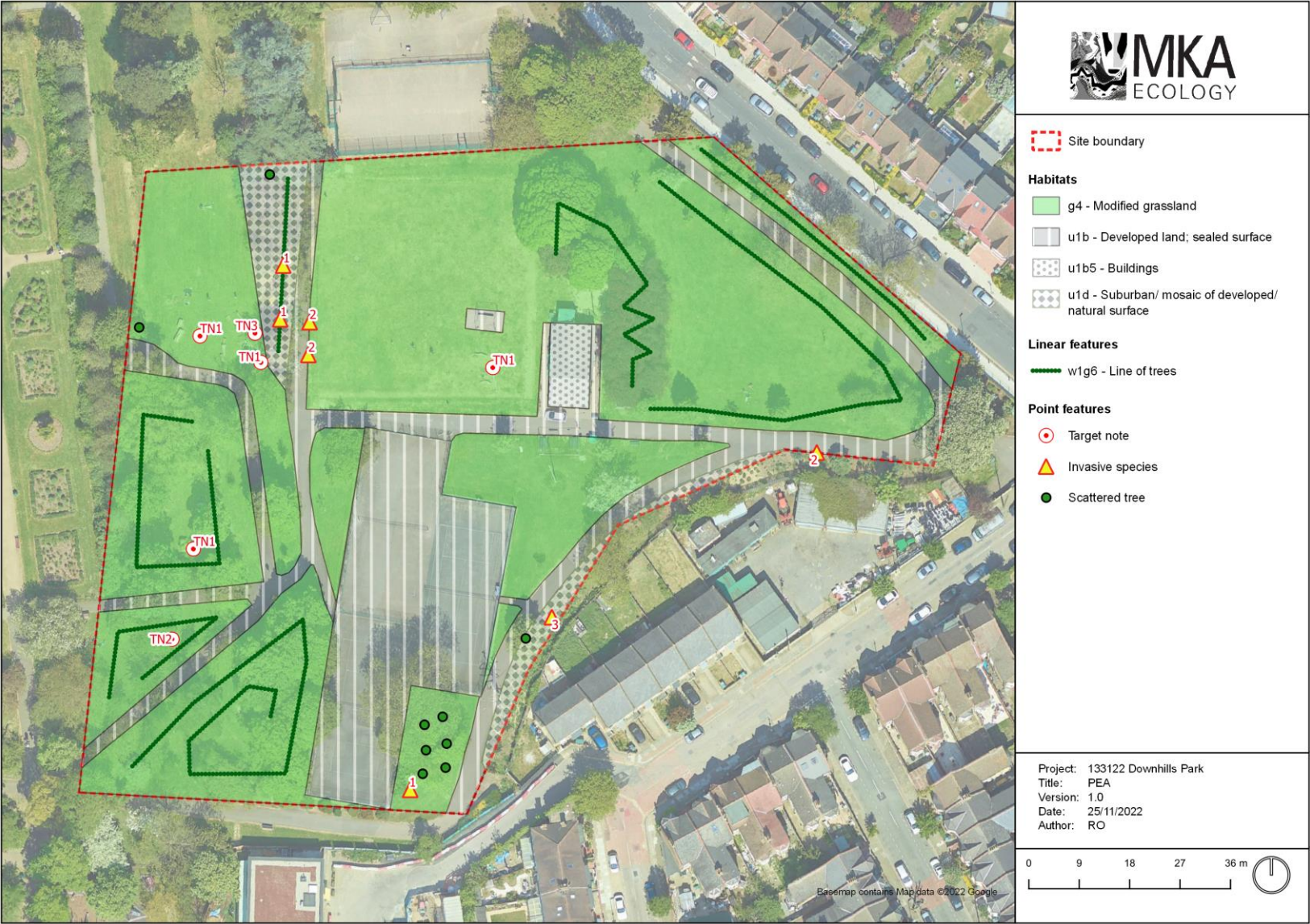
Further details are provided in Appendix 1.

There is also a Biodiversity Action Plan for Greater London (London Biodiversity Partnership, 2022), which identifies a number of regional priority habitats and species.

2.5. Author and reviewer

The survey was undertaken by Rory Roche ACIEEM, Senior Ecologist at MKA Ecology Ltd, and Ross Oliver Qualifying CIEEM, Graduate Ecologist at MKA Ecology Ltd. Rory has six years' experience within the industry conducting Preliminary Ecological Appraisals and Preliminary Roost Assessments, and holds a Natural England Class I bat licence. Ross is within his first year in the industry. This report has been written by Ross, reviewed by Lydia Ennis ACIEEM, Consultant Ecologist at MKA Ecology Ltd., and approved by Rory. Lydia has six years' experience as an ecologist.

Figure 1: UK Habitat Classification Map of the Site



Target notes and invasive species:

Target Note 1: Fallen tree

Target Note 2: Standing deadwood

Target Note 3: Standing deadwood with low bat roost potential

Invasive species 1: Cherry laurel *Prunus laurocerasus*

Invasive species 2: Green alkanet *Pentaglottis sempervirens*

Invasive species 3: Snowberry *Symphoricarpos albus*

3. METHODOLOGIES

3.1. Scope of the assessment

This Ecological Impact Assessment has been undertaken in accordance with the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Impact Assessment in UK and Ireland (CIEEM, 2018).

Following the results of the survey, the scope of this assessment is largely based on the Site's value within the local area. As such, the zone of influence is considered to be at a local level with regards to ecological effects.

Protected and notable habitats, species or species groups which were scoped out at the Preliminary Ecological Appraisal technical note stage are listed below and are not considered further within the scope of this assessment:

- Habitats of Principal Importance: No habitats present at the Site are classified as Habitats of Principal Importance (HPI);
- Protected or notable plant species: Absence of suitable habitat to support protected or notable species;
- Amphibians: Absence of suitable waterbodies within 500m of the Site to support amphibian species;
- Fish: Absence of suitable habitat to support fish species;
- Semi-aquatic mammals: Absence of suitable habitat for otter *Lutra lutra* and water vole *Arvicola amphibius*;
- Badger: Absence of suitable habitat for badger *Meles meles*; and
- Small mammals: Absence of suitable habitat for brown hare *Lepus europaeus*, harvest mouse *Micromys minutus*, polecat *Mustela putorius* and hazel dormouse *Muscardinus avellanarius*.

A number of ecological features were deemed to be present that require specific measures to be put in place during the construction and operational phases of the development in order to ensure compliance with legislation and policy. These are regularly encountered ecological constraints with standardised mitigation measures. Consequently, these were not subject to further surveys beyond the Preliminary Ecological Appraisal. These include:

- Designated sites: a number of mitigation measures will be put in place during the construction phase of the development so as to ensure that the integrity of Downhills Park SINCS is maintained;
- Invasive species: Sensitive removal of all instances of invasive plant species, with arisings disposed of as controlled waste;

- Invertebrates: Any deadwood clearance deemed necessary will be undertaken under ecological supervision and in line with a stag beetle management plan;
- Breeding birds: Ground and vegetation clearance works will avoid the breeding bird season (March to August inclusive) or be preceded by a nesting bird check conducted by an experienced ornithologist;
- Reptiles: Any vegetation clearance required should be undertaken in a staged, directional manner;
- Foraging and Commuting Bats: Develop sensitive lighting scheme for construction and operational phases of development; and
- Hedgehog *Erinaceus europaeus*: Checks to be undertaken prior to removal of suitable habitats.

3.2. Desktop study

A data search was commissioned in October 2022, with the study area being defined as TQ 31983 87582 and 10km radius for internationally designated sites, and a 2km radius for nationally designated sites and species records. The organisations listed in Table 1 were contacted with regard to biodiversity data.

Table 1: Organisations providing biodiversity data

Organisation	Data collected	Date collected
Multi-agency Geographic Information for the Countryside (MAGIC) www.magic.gov.uk	Information on local, national and international statutory protected areas.	25/11/2022
Greenspace Information for Greater London (GiGL)	Information on protected and notable sites and species within 2km of the Site	16/11/2022
Ordnance Survey maps and aerial photography	Information on protected and notable sites and species within 2km of the Site	25/11/2022
Plantlife Important Plant Areas	Location of hotspots for plant diversity and sites of importance for their conservation.	25/11/2022
Buglife Important Invertebrate Areas	Location of hotspots for invertebrate diversity and sites of importance for their conservation.	25/11/2022

3.3. Field surveys and assessments

The following field surveys were conducted at the Site:

Preliminary Ecological Appraisal (October 2022): The Preliminary Ecological Appraisal included a desktop study (methodology and results presented in Appendix 4), a UK Habitat Classification survey (Butcher *et al.*, 2020) (habitat map presented in Figure 1, species lists presented in Appendix 5) and protected species scoping survey (results presented in Section 4 below; methodology presented in Appendix 3). A Site visit was undertaken by Rory Roche (Senior Ecologist, MKA Ecology Ltd) and Ross Oliver (Graduate Ecologist, MKA Ecology Ltd) on 04 October 2022. The appraisal was conducted in accordance with survey guidance from CIEEM (2017).

3.4. Constraints

Preliminary Ecological Appraisal: It should be noted that a single visit cannot categorically ascertain the presence or absence of any protected species. However, an assessment is made of the likelihood for protected species to occur based on habitat characteristics and the ecology of each species. Where there is potential for protected species, additional survey work may be required to ascertain their presence or absence.

Data on species records obtained from local biological records centres are sometimes only available at low spatial resolutions and are constrained by the voluntary nature of the contributions and what has been chosen to be submitted as records. While these records provide a useful indication of species recorded in the local area, in particular protected or notable species, the data is not necessarily an accurate reflection of species assemblages or abundance in the vicinity.

The assessment was undertaken outside the optimum period for Preliminary Ecological Appraisals (which runs between April to September). Did this affect survey findings?

3.5. Assessment

Ecological features are identified, evaluated and assessed with reference to the CIEEM Guidelines for Ecological Impact Assessment (CIEEM, 2018). A detailed methodology is available in Appendix 2.

4. BASELINE CONDITIONS

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 summarised field survey data and relevant existing information gathered from the key documents relating to the Site.

4.1. Designated sites

Two internationally designated sites are located within 10km of Downhills Park; one national statutorily designated site is located within 2km of the Site. Full details are provided within Appendix 4. Given the nature and extent of the proposed works, however, no impacts resultant from the development proposals are anticipated on these designated sites.

The Site lies within Natural England Site of Special Scientific Interest (SSSI) Impact Risk Zone (IRZ) (Natural England, 2019). However, the nature of the proposed development is such that it does not fall into a category of development that requires further consideration of the IRZ.

There are 27 non-statutory designated sites within 2km of the Site (see Appendix 4 for full details of these designations). Of these, the Site comprises part of the Downhills Park Local Grade Site of Importance for Nature Conservation (SINC).

4.2. Invasive species

Cherry laurel *Prunus laurocerasus* (Invasive species 1, Figure 1), green alkanet *Pentaglottis sempervirens* (Invasive species 2, Figure 1) and snowberry *Symphoricarpos albus* (Invasive species 3, Figure 1) were also identified at the Site. These species are listed as invasive on London's Invasive Species Initiative (LISI). The presence of invasive species at the Site is **confirmed**.

4.3. Invertebrates

The data search returned a number of records for protected and notable invertebrate species within 2km of the Site; species of note include; white ermine *Spilosoma lubricipeda*, Jersey tiger *Euplagia quadripunctaria* and stag beetle *Lucanus cervus*. Stag beetle are listed on Schedule 5 of the Wildlife and Countryside Act (1981); all three species are listed as Species of Principal Importance (SPI) on the NERC Act (2006) and as London Biodiversity Action Plan (BAP) priority species.

A number of standing and fallen deadwood features (Target Notes 1, 2 and 3, Figure 1) are present at the Site. Deadwood provides important habitat for invertebrates, particularly stag beetle; stag beetle

larvae live in deadwood for up to seven years and use it as their primary food source. The likelihood that the Site supports stag beetle has been assessed to be **moderate**.

4.4. Reptiles

The data search returned a small number of records for slow-worm *Anguis fragilis* and grass snake *Natrix helvetica*. The most recent record is for slow-worm dated from 2017 located 1.9km from the Site; the nearest record is for grass snake located 1.8km from the Site dated from 2012.

The introduced shrubs and grassland margin habitats have some limited potential to support reptiles. The likelihood that the Site supports reptiles has been assessed to be **low**.

4.5. Breeding birds

Five bird species were recorded during the Site visit. These species are shown in Table 2 together with their conservation status. It is important to note that this is not a full inventory of species for the site.

Table 2: Bird species recorded at Downhills Park Tennis Courts

Common name	Systematic name	S1 W&CA ¹	BoCC ² Status	S41 SPI ³	Local PrSp ⁴
Feral pigeon	<i>Columba livia domestica</i>	-	Green	-	-
Magpie	<i>Pica pica</i>	-	Green	-	-
Ring necked parakeet	<i>Psittacula krameri</i>	-	Invasive	-	-
Starling	<i>Sturnus vulgaris</i>	Yes	Red	-	Yes
House sparrow	<i>Passer domesticus</i>	Yes	Red	-	Yes

¹ Schedule 1 of The Wildlife and Countryside Act 1981 (see Appendix 1)

² Birds of Conservation Concern (see Appendix 1)

³ Section 41 (NERC Act 2006) 'Species of Principal Importance' (see Appendix 1)

⁴ Local Priority Species

A large number of records for protected or notable bird species were returned by the data search, including species listed on Annex 1 of the Birds Directive, Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), Section 41 of the NERC Act (2006) and Birds of Conservation Concern (Eaton et al., 2015), such as swift *Apus apus*, and starling *Sturnus vulgaris*.

The lines of trees, scattered trees and introduced shrubs provide suitable habitat for a range of common bird species. The likelihood that the Site supports nesting birds has been assessed to be **high**. The likelihood that the Site supports significant assemblages of notable species, such as those listed above, has been assessed to be **negligible**, however.

4.6. Bats

The data search returned records for eight bat species, including Daubenton's bat *Myotis daubentonii*, whiskered bat *Myotis mystacinus*, Leisler's bat *Nyctalus leisleri*, noctule *Nyctalus noctula*, Nathusius's pipistrelle *Pipistrellus nathusii*, common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus* and brown long-eared bat *Plecotus auritus*, as well as a number of unidentified bats (*Chiroptera*, *Pipistrellus*, *Vespertilionidae*).

One standing deadwood feature (Target Note 3, Appendix 1) is considered to have **low** suitability for roosting bats. The lines of trees and introduced shrubs provide opportunities for foraging and commuting bats. As the Site is directly connected to a larger area with further suitable habitats, the Site has been assessed as having **high** suitability to support commuting and foraging bats.

4.7. Hedgehog

A large number of records for hedgehog were returned by the data search. The nearest record for hedgehog is located 0.6km north-east of the Site; the most recent record dates from 2020. Hedgehog are protected under Schedule 6 of the Wildlife and Countryside and are also listed as Species of Principal Importance on Section 41 of the NERC Act (2006).

The various areas of grassland present at the Site provide suitable foraging habitat for hedgehog; the woodland provides suitable refuge habitat. The likelihood that the Site supports hedgehog has been assessed to be **moderate**.

5. DESCRIPTION OF PROPOSALS

The current proposals involve the resurfacing and development of two tennis courts in the footprint of the courts currently present at the Site, and the creation of two mini courts. New fencing and lighting will also be implemented in association with the courts.

6. ASSESSMENT OF EFFECTS AND MITIGATION

The following assessment is based on combined information from the Preliminary Ecological Appraisal survey undertaken in October 2022, and the desktop study undertaken in November 2022. An assessment of the significance of residual effects is provided only where the ecological feature or species is confirmed to be present onsite.

6.1. Designated sites

Potential impacts

The operational phase of the proposed development is unlikely to significantly impact Downhills Park SINC; Downhills Park is well equipped to deal with any increase in recreational pressure resultant from the redevelopment of the tennis courts, which is anticipated to be very limited given that tennis courts are already present at the Site.

The development phase of the proposed development is unlikely to significantly impact P Downhills Park SINC, provided appropriate management and mitigation measures are implemented during construction. Measures designed to maintain the integrity of Downhills Park SINC during the construction phase of the development are detailed within the recommendations section below. These measures will also be detailed within the CEMP that will be produced for the Site.

Mitigation and compensation measures

The following mitigation measures should be put in place during the construction phase of the development, and formally be detailed within the CEMP to be produced, so as to ensure that the integrity of Downhills Park SINC is maintained:

- Any activities involving potential pollutants, such as concrete or fuel, should be carried out in dedicated areas which are designed so that spills, leaks, drips and contaminated run-off can be captured and properly disposed of;
- Stockpiles (for example soil, sand or hardcore) should be protected so that materials are not blown or washed away;
- General demolition dust will be controlled by a continuous fine water spray from onsite supplies or done whilst it is raining. Further protection will be achieved through the erection of temporary Heras fencing equipped with a dust and debris net to protect the SINC from any airborne dust or debris;
- Odour control is to be kept to a minimum. Plant will only be in operation during working hours; and
- Generators will only be operated as and when required.

Residual effects

No residual effects are anticipated as a result of the proposed development.

6.2. Invasive species

Potential impacts

Cherry laurel, green alkanet and snowberry have the potential to out compete native flora and negatively impact biodiversity and native species.

Mitigation measures

All instances of invasive species should be subject to sensitive removal from the Site, with arisings treated as controlled waste and disposed of appropriately in order to avoid their spread.

Residual effects

The removal of invasive species will result in a net **minor positive** effect as a result of the proposed development at a **local scale**.

6.3. Invertebrates

Potential impacts

The removal or disturbance of the standing and fallen deadwood onsite has the potential to impact on protected or notable invertebrates, particularly stag beetle which is listed on Schedule 5 of the Wildlife and Countryside Act (1981) as amended and a London Biodiversity Action Plan Priority Species.

Mitigation measures

All deadwood features will be left in situ where possible. Should the removal of deadwood features be deemed necessary, all stump grinding and removal works will be undertaken under in an approved manner under ecological supervision in order to safeguard stag beetle. As such, a method statement is required to detail how the works can be undertaken in an ecologically sensitive manner. This method statement will include the required precautionary mitigation measures to reduce potential impacts to stag beetle during the works and will provide guidance to contractors on the recommended course of action should an individual be found on site. Following the production of a method statement, an Ecological Clerk of Works (ECoW) will be required to supervise the stump clearance. The ECoW will be present on site to ensure that stag beetles are not harmed during the works. A number of additional deadwood features will be incorporated into the design scheme to provide additional habitat for invertebrates. Further detailed information on these features is provided in Appendix 7.

Residual effects

A net **minor positive** effect for invertebrates is anticipated as a result of the proposed development at a **local scale**.

6.4. Reptiles

Potential impacts

Should it be the case that reptiles are present at the Site, the clearance or management of the introduced shrubs or grassland margins could lead to injury or death of individual reptiles. All native reptiles are protected under schedule 5 of The Wildlife and Countryside Act 1981 (as amended). Improperly managed vegetation clearance could thus lead to an offence under this legislation.

Mitigation measures

As a precautionary measure, sensitive vegetation clearance methodology will be adopted to avoid harming any reptiles and amphibians present during the clearance works. This will be achieved through the employment of habitat manipulation where vegetation is cleared in a staged and directional manner towards retained contiguous habitats, thereby encouraging reptiles to relocate to retained peripheral habitats. Initially vegetation should be cut to approximately 15cm in height and followed by a search of the area for reptiles. Following this, the vegetation can be cleared to ground level. This should be conducted outside of the hibernation period (between March/April and September/October). The full method statement will be detailed within the CEMP.

Residual effects

No residual effects are anticipated as a result of the proposed development.

6.5. Breeding birds

Potential impacts

Vegetation clearance and pruning works to the line of trees undertaken during the breeding bird season have the potential to destroy active birds' nests, and can cause injury or death to individuals. All wild birds, their active nests and eggs are protected under The Wildlife and Countryside Act 1981 (as amended), which makes it an offence deliberately, or recklessly, to kill or injure any wild bird or damage or destroy any active birds' nest or eggs. Works could thus result in a violation of this legislation.

Mitigation measures

Clearance works should be scheduled outside of breeding bird season. Scheduling tree removal works between the months of September and February inclusive (i.e. outside of the bird season) would avoid impacts on breeding birds. Scrub clearance works should similarly be scheduled outside of breeding bird season. Where clearance works are required during the breeding bird season (between the months of March and August inclusive), such works can only proceed following the completion of a nesting bird check undertaken by an experienced ornithologist. Any active birds' nest identified during this check must be protected from harm until the nesting attempt is complete. This will require a buffer to be left around the nest, the size of which will depend upon the species involved (as a general rule, this will be 10m in all directions around the nest). Any buffers established as a result of the initial nesting bird check

must be subjected to a second check after the original nesting attempt is completed, before such areas can be removed during the breeding bird season.

Six generalist bird boxes will be incorporated into the design scheme, mounted on mature trees around the Site. Generalist boxes provide habitat to a wide range of species including house sparrow, which are nationally red-listed and are a London Biodiversity Action Plan Priority Species. Further detailed information on suitable boxes is provided in Appendix 7.

Residual effects

A net **minor positive** effect for breeding birds is anticipated as a result of the proposed development at a **local scale**.

6.6. Roosting bats

Potential impacts

The standing deadwood (Target Note 3, Figure 1) is not set to be subject to any clearance or pruning works under the current proposals.

Mitigation measures

Should works take place within the vicinity of the standing deadwood with bat roosting potential, a 5m buffer will be put in place to protect the tree from any accidental damage.

A sensitive lighting scheme will be developed to ensure that there is no unnecessary light spill that may negatively impact any roosting bats using the standing deadwood. The tree will remain unlit and the lighting scheme should follow the guidance set out by the Institution of Lighting Professionals and Bat Conservation Trust (2018). Four bat boxes will be incorporated into the design scheme, mounted on mature trees around the Site. Further detailed information on suitable boxes is provided in Appendix 7.

Residual effects

A net **minor positive** effect for roosting bats is anticipated as a result of the proposed development at a **local scale**.

6.7. Foraging and commuting bats

Potential impacts

There has been assessed to be a high likelihood that the Site supports commuting and foraging bats. New lighting is set to be installed in under the development proposals; additional lighting may also be required during the construction phase of the development. Bat roosting behaviour, commuting and foraging activity can be dramatically affected by artificial lighting (BCT, 2018). Artificial light can render

important foraging and commuting habitats unusable to bats, consequently reducing their fitness and ability to maintain viable breeding populations.

Mitigation measures

Light pollution will be minimised for any additional lighting at the Site during the construction or operational phases of the development. A sensitive lighting scheme will be developed to allow for suitable commuting and foraging areas for bats within the Site with maximum use of appropriate luminaries and directed lighting.

Residual effects

No residual effects are anticipated as a result of the proposed development.

6.8. Hedgehog

Potential impacts

The areas of grassland have the potential to support hedgehog. Hedgehog are protected under Schedule 6 of the Wildlife and Countryside and are also listed as Species of Principal Importance on Section 41 of the NERC Act (2006). Clearance of this habitat has the potential to cause injury or death to any individuals that may be present.

Mitigation measures

A hedgehog check will be undertaken immediately prior to the commencement of works.

Residual effects

No residual effects are anticipated as a result of the proposed development.

6.9. Cumulative effects

No negative residual effects are anticipated resultant from the proposed development, provided that works are appropriately managed in line with the to-be-produced CEMP. Given the enhancements included in the design scheme a minor net positive effect is anticipated as a result of the proposals.

7. ECOLOGICAL ENHANCEMENTS/COMPENSATION

Following the issue of the National Planning Policy Framework (NPPF), all planning decisions should aim to maintain and enhance, restore or add to biodiversity and geological conservation interests. In addition to the mitigation measures outlined above with respect to the removal of invasive species, a small number of ecological enhancements are proposed, which will ensure that biodiversity gains are delivered.

The planting of native species or those with a known attraction or benefit to local wildlife is recommended for the landscape proposals. This will help to increase native plant species diversity, provide more ecologically valuable habitats, and result in a greater diversity of other dependent taxonomic groups. There is the opportunity to incorporate a diversity of native tree and shrub species into the planting schemes for the new development, which would provide opportunities to invertebrates and subsequent foraging resources for other species within the ecosystem, including birds and bats.

Enhanced opportunities for breeding birds and roosting bats will be incorporated into the design scheme. Six generalist bird boxes will be mounted on trees, fences and built structures at the Site; four bat boxes will also be mounted on trees and buildings at the Site. Buried deadwood features will be incorporated into the Site design so as to provide opportunities for stag beetle and other invertebrates. Further detailed information about the discussed enhancements is provided in Appendix 7. These enhancements meet local nature recovery targets, focusing on priority species identified in London's Biodiversity Action Plan (London Biodiversity Partnership, 2022).

8. SUMMARY

A summary is provided in Table 3 below on the impacts, mitigation, residual effects and compensation measures needed at Downhills Park Tennis Courts, Haringey.

Table 3: Summary of effects, mitigation, compensation, enhancement and residual effects on ecological features at Downhills Park Tennis Courts

Ecological feature	Impacts	Effect with no mitigation*	Mitigation and compensation	Residual effects	Delivery
Invasive species	Out-compete local flora resulting in detriment to biodiversity	Long-term minor negative effect	Removal of all instances of invasive species and subsequent sensitive disposal	Minor positive	CEMP
Designated sites	Pollutants and dust produced during construction works on may damage Downhills Park SINC	Short-term minor negative effect	Implementation of measures to prevent damage to the designated site during works	None	CEMP
Invertebrates	Removal of habitat and killing/injury of stag beetle larvae	Long-term significant negative effect	- Retain deadwood features - Produce a stag beetle management plan - Undertake stump grinding works under ECoW - Creation of deadwood habitat	Minor positive	CEMP, EcIA
Reptiles	Killing and injury of individual reptiles	Long-term significant negative effect	Habitat manipulation exercise during clearance of suitable habitats	None	CEMP
Breeding birds	Loss of habitat and potential impacts on active nests	Long-term significant negative effect Legislation risk	- Vegetation clearance to avoid nesting bird season, or nesting bird checks. - Erection of bird boxes.	Minor positive	CEMP, EcIA
Roosting bats	Destruction of potential bat roost	Long-term significant negative effect Legislation risk	- Retain standing deadwood (Target note 3, Figure 1) - Erection of bat boxes	Minor positive	CEMP, EcIA
Foraging and commuting bats	Disturbance resulting from artificial lighting during development and operational phases of proposed development	Long-term minor negative effect	Sensitive lighting scheme implemented during construction and operation.	None	EcIA

Ecological feature	Impacts	Effect with no mitigation*	Mitigation and compensation	Residual effects	Delivery
Hedgehog	Potential killing and injuring of individuals	Long-term negative effect	Pre works hedgehog check	None	CEMP

*all effects calculated at County or Local scale

9. CONCLUSIONS

Downhills Park Tennis Courts, Haringey comprises large areas of well-managed modified grassland, intersected with pedestrian footpaths. Lines of young, semi-mature and mature trees are present throughout the Site with small areas of introduced shrub planting. One building is situated within the centre of the Site. The Site comprises part of Downhills Park Site of Importance for Nature Conservation (SINC). The Site is bound to the south and west by the wider Downhills Park SINC, which comprises extensive areas of grassland, lines of trees, introduced shrubs and small woodland blocks. The Site is in constant use as a public amenity space.

The current proposals involve the resurfacing and development of two tennis courts in the footprint of the courts currently present at the Site. Two new mini courts, new fencing and a lighting scheme will also be implemented in association with the courts.

Three invasive plant species were identified at the Site, which may spread to the wider SINC site. Non-native and invasive species have the potential to out-compete native flora and may result in a detriment to biodiversity and the ecological value of Downhills Park SINC. The invasive species present will be sensitively disposed of during Site clearance works.

The Site holds the potential to support roosting, foraging and commuting bats, breeding birds, invertebrates, reptiles and hedgehog. Mitigation strategies have been proposed to ensure no protected species are harmed during the vegetation removal; a sensitive lighting scheme has been proposed so as to minimise impacts on bats.

Following the issue of the National Planning Policy Framework (NPPF), all planning decisions should aim to maintain and enhance, restore or add to biodiversity and geological conservation interests. A number of ecological enhancements have been proposed, including a bat and bird box scheme and the provision of deadwood features, which will ensure that biodiversity gains are delivered at Downhills Park Tennis Courts, Haringey.

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11. APPENDICES

Appendix 1: Relevant wildlife legislation and planning policy

National Legislation and planning policy

Please note that the following is not an exhaustive list, and is solely intended to cover the most relevant legislation pertaining to species commonly associated with development sites.

Subject	Legislation (England)	Relevant prohibited actions
Amphibians		
Great crested newt <i>Triturus cristatus</i> Natterjack toad <i>Epidalea calamita</i>	Schedule 2 of Conservation of Habitats and Species Regulations 2017 (as amended)	- Deliberately capture or kill, or intentionally injure; - Deliberately disturb or recklessly disturb them in a place used for shelter or protection; - Damage or destroy a breeding site or resting place; - Intentionally or recklessly damage, destroy or obstruct access to a place used for shelter or protection; and - Possess an individual, or any part of it, unless acquired lawfully.
	Schedule 5 of The Wildlife and Countryside Act 1981 (as amended)	
Reptiles		
Common lizard <i>Zootoca vivipara</i> Adder <i>Vipera berus</i> Slow-worm <i>Anguis fragilis</i> Grass snake <i>Natrix helvetica</i>	Part of Sub-section 9(1) of Schedule 5 of The Wildlife and Countryside Act 1981 (as amended)	Intentionally kill or injure individuals of these species (Section 9(1)).

Subject	Legislation (England)	Relevant prohibited actions
Sand lizard <i>Lacerta agilis</i> Smooth snake <i>Coronella austriaca</i>	Full protection under Section 9 of Schedule 5 of The Wildlife and Countryside Act 1981 (as amended)	• Deliberately or intentionally kill, capture (take) or intentionally injure; • Deliberately disturb; • Deliberately take or destroy eggs; • Damage or destroy a breeding site or resting place or intentionally damage a place used for shelter; or • Intentionally obstruct access to a place used for shelter.
Birds		
All wild birds	Wildlife and Countryside Act 1981 (as amended)	• Intentionally kill, injure, or take any wild bird or their eggs or nests.
'Schedule 1' birds	Schedule 1 of the Wildlife and Countryside Act 1981 (as amended)	• Disturb any wild bird listed on Schedule 1 whilst it is building a nest or is in, on, or near a nest containing eggs or young; or • Disturb the dependent young of any wild bird listed on Schedule 1.
Mammals		
Bats (all UK species)	Schedule 2 of Conservation of Habitats and Species Regulations 2017 (as amended)	• Deliberately capture, injure or kill a bat; • Deliberately disturb a bat (disturbance is defined as an action which is likely to: (i) Impair their ability to survive, to breed or reproduce, or to rear or nurture their young; (ii) Impair their ability to hibernate or migrate; or (iii) Affect significantly the local

Subject	Legislation (England)	Relevant prohibited actions
	Schedule 5 of Wildlife and Countryside Act 1981 (as amended)	distribution or abundance of the species); • Damage or destroy a bat roost; • Intentionally or recklessly disturb a bat at a roost; or • Intentionally or recklessly obstruct access to a roost. In this interpretation, a bat roost is "<i>any structure or place which any wild [bat]...uses for shelter or protection</i>". Legal opinion is that the roost is protected whether or not the bats are present at the time.
Badger <i>Meles meles</i>	Protection of Badgers Act 1992	Under Section 3 of the Act: • Damage a sett or any part of it; • Destroy a sett; • Obstruct access to, or any entrance of, a sett; or • Disturb a badger when it is occupying a sett. A sett is defined legally as any structure or place which displays signs indicating current use by a badger (Natural England 2007).
Otter <i>Lutra lutra</i>	Schedule 2 of Conservation of Habitats and Species Regulations 2017 (as amended)	• Deliberately capture, injure or kill an otter; • Deliberately disturb an otter in such a way as to be likely to significantly affect the local distribution or

Subject	Legislation (England)	Relevant prohibited actions
	Section 9(4)(b) and (c) of Schedule 5 of Wildlife and Countryside Act 1981 (as amended)	abundance of otters or the ability of any significant group of otters to survive, breed, rear or nurture their young; • Intentionally or recklessly disturb any otter whilst it is occupying a holt; • Damage or destroy or intentionally or recklessly obstruct access to an otter holt.
Water vole <i>Arvicola amphibius</i>	Section 9 of Schedule 5 of Wildlife and Countryside Act 1981 (as amended)	• Intentionally kill, injure or take water voles; • Possess or control live or dead water voles or derivatives; • Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection; or • Intentionally or recklessly disturb water voles whilst occupying a structure or place used for that purpose.
<i>Crustaceans</i>		
White-clawed crayfish <i>Austropotamobius pallipes</i>	Section 9(1) of Schedule 5 of Wildlife and Countryside Act 1981 (as amended)	• Intentionally kill, injure or take white-clawed crayfish by any method.

The Environment Act 2021

The Environment Act 2021, sets out key legislation after the UK's exit from the European Union. With the largest changes to green regulations in decades, the Act includes the establishment of an Office for Environmental Protection, targets on air pollution, water quality and biodiversity, and the enshrinement of the 25 Year Environment Plan in law. The Act also makes provisions for a mandatory 10% net gain in biodiversity for all developments covered by the Town and Country Planning Act and it also introduces a statutory requirement for Local Nature Recovery Strategies.

Full legislation text available at: <https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted>

The Conservation of Habitats and Species Regulations 2017 (as amended)

Full legislation text available at: <http://www.legislation.gov.uk/uksi/2019/579/contents/made>

The Wildlife and Countryside Act 1981 (as amended)

Full legislation text available at: <http://www.legislation.gov.uk/ukpga/1981/69/contents>.

Countryside and Rights of Way Act 2000

Full legislation text available at: <http://www.legislation.gov.uk/ukpga/2000/37/contents>

Section 41 of Natural Environments and Rural Communities (NERC) Act 2006

Full legislation text available at: <http://www.legislation.gov.uk/ukpga/2006/16/section/41>

Many of the species above, along with a host of others not afforded additional protection, are listed on Section 41 of the NERC Act 2006.

Section 41 (S41) of the Natural Environment and Rural Communities (NERC Act 2006) requires the Secretary of State to publish a list of habitats and species that are of principal importance for the conservation of biodiversity in England. The list (including 56 habitats and 943 species) has been drawn up in consultation with Natural England and draws upon the UK Biodiversity Action Plan (BAP) List of Priority Species and Habitats.

The S41 list should be used to guide decision-makers such as local and regional authorities to have regard to the conservation of biodiversity in the exercise of their normal functions – as required under Section 40 of the NERC Act 2006. The duty applies to all local authorities and extends beyond just conserving what is already there, to carrying out, supporting and requiring actions that may also restore or enhance biodiversity.

Schedule 9 of Wildlife and Countryside Act 1981 (as amended)

In addition to affording protection to some species, The Wildlife and Countryside Act 1981 (as amended) also names species which are considered invasive and require control. Section 14 of the Act prohibits the introduction into the wild of any animal of a kind which is not ordinarily resident in, and is not a regular visitor to, Great Britain in a wild state, or any species of animal or plant listed in Schedule 9 to the Act. In the main, Schedule 9 lists non-native species that are already established in the wild, but which continue to pose a conservation threat to native biodiversity and habitats, such that further releases should be regulated.

Wild Mammals (Protection) Act 1996

Full legislation text is available at: <http://www.legislation.gov.uk/ukpga/1996/3/contents>

Under this legislation it is an offence to cause unnecessary suffering to wild mammals, including by crushing and asphyxiation. It largely deals with issues of animal welfare, and covers all non-domestic mammals including commonly encountered mammals on development sites such as rabbits, foxes and field voles.

Birds of Conservation Concern (BoCC)

This is a quantitative assessment of the status of populations of bird species which regularly occur in the UK, undertaken by the UK's leading bird conservation organisations. It assesses a total of 245 species against a set of objective criteria to place each on one of three lists – Green, Amber and Red – indicating an increasing level of conservation concern. There are currently 70 species on the Red list, 103 on the Amber list and 72 on the Green list. The classifications described have no statutory implications, and are used merely as a tool for assessing scarcity and conservation value of a given species.

National Planning Policy Framework (NPPF)

Full text is available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

The revised NPPF was updated on 20 July 2021 setting out the Government's planning policies for England and the process by which these should be applied. The policies within the NPPF are a material consideration in the planning process. The key principle of the NPPF is a presumption in favour of sustainable development, with sustainable development defined as a balance between economic, social and environmental needs.

Policies 174 to 188 of the NPPF address conserving and enhancing the natural environment, stating that the planning system should:

- Contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes;
- Recognise the wider benefits of ecosystem services; and
- Minimise impacts on biodiversity and provide net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity.

Furthermore there is a focus on re-use of existing brownfield sites or sites of low environmental value as a priority, and discouraging development in National Parks, Sites of Specific Scientific Interest, the Broads or Areas of Outstanding Natural Beauty other than in exceptional circumstances.

Where possible, planning policies should also

“promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity”.

Local Planning Policy

The London Borough of Haringey has produced an adopted Local Plan Strategic Policies 2013-2026 document which covers the policies relating to biodiversity and habitat conservation. In particular Policy SP13: Open Space and Biodiversity states:

“... All development shall protect and improve sites of biodiversity and nature conservation, including private gardens through its:

- Contribution to wildlife and ecological habitats and, where possible, include green and brown roofs, rainwater harvesting, green walls, bird and bat nesting/roosting opportunities;*
- Protection, management and maintenance of existing trees and the planting of new trees where appropriate; and*
- Protection, enhancement and creation of Sites of Importance for Nature Conservation (SINCs) and Local Nature Reserves (LNRs).*

A new Local Plan is currently consultation and is proposed to run from 2022 to 2037.

Given that the Site is located within London, consideration of the policies relating to biodiversity within the London Plan 2021 has also been given. These include policies G1 and G5 to G8, as detailed below:

- Policy G1 Green infrastructure
 - a) London’s network of green and open spaces, and green features in the built environment, should be protected and enhanced. Green infrastructure should be planned, designed and managed in an integrated way to achieve multiple benefits.*
 - b) Boroughs should prepare green infrastructure strategies that identify opportunities for cross-borough collaboration, ensure green infrastructure is optimised and consider green infrastructure in an integrated way.*
 - c) Development Plans and area-based strategies should use evidence, including green infrastructure strategies, to:*
 - 1. identify key green infrastructure assets, their function and their potential function*
 - 2. identify opportunities for addressing environmental and social challenges through strategic green infrastructure interventions.*
 - 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 within the London Plan, 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 the London Plan*

- **Policy G6 Biodiversity and access to nature**
 - a) Sites of Importance for Nature Conservation (SINCs) should be protected.*
 - b) Boroughs, in developing Development Plans, should:*
 - 1. use up-to-date information about the natural environment and the relevant procedures to identify SINCs and ecological corridors to identify coherent ecological networks*
 - 2. identify areas of deficiency in access to nature (i.e. areas that are more than 1km walking distance from an accessible Metropolitan or Borough SINC) and seek opportunities to address them*
 - 3. support the protection and conservation of priority species and habitats that sit outside the SINC network, and promote opportunities for enhancing them using Biodiversity Action Plans*
 - 4. seek opportunities to create other habitats, or features such as artificial nest sites, that are of particular relevance and benefit in an urban context*
 - 5. ensure designated sites of European or national nature conservation importance are clearly identified and impacts assessed in accordance with legislative requirements.*
 - 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**
 - a) London's urban forest and woodlands should be protected and maintained, and new trees and woodlands should be planted in appropriate locations in order to increase the extent of London's urban forest – the area of London under the canopy of trees.*

b) In their Development Plans, boroughs should:

- 1. protect 'veteran' trees and ancient woodland where these are not already part of a protected site*
- 2. identify opportunities for tree planting in strategic locations.*

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.

- **Policy G8 Food growing**

a) In Development Plans, boroughs should:

- 1. protect existing allotments and encourage provision of space for urban agriculture, including community gardening, and food growing within new developments and as a meanwhile use on vacant or under-utilised sites*
- 2. identify potential sites that could be used for food production.*

Local Priority Habitats and Species

The London Biodiversity Action Plan, led by the London Biodiversity Partnership, identified a total of 214 priority species that are under particular threat in London. The full text is available here: <https://www.gigl.org.uk/london-bap-priority-species/>

Appendix 2: Evaluation and assessment methodology

Ecological features are evaluated and assessed following the guidelines from the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Impact Assessment (EclA, CIEEM, 2018). The evaluation and assessment process adopted within this Ecological Assessment is set out below.

Establishing potentially important ecological features

Potentially important ecological features of relevance to the development are determined in accordance with current CIEEM guidelines. Table 4 below lists examples of ecological features that are typically considered, along with examples.

Table 4: List of Ecological Features considered for importance

Potentially Important Ecological Features	Examples
Statutory nature conservation designations	SSSIs, SACs, SPAs, Ramsar sites, LNRs, NNRs
Non-statutory nature conservation designations	Local Wildlife Sites (LoWS); County Wildlife Sites (CWS)
Protected Species	European Protected Species
International, National or local priority habitats	S41 priority habitats and species; Annex I Habitats; County/Local BAP habitat
Notable species or sub-species	Individual red-listed species
Notable or large population or assemblage of species	Diverse bird assemblage; exceptional numbers of common amphibians
Habitats which form diverse mosaics, create important connection and/or have synergistic attributes	Riparian habitat corridors; hedgerow network utilised by important bat population
Habitats of potential or supplementary importance (for the expansion, restoration or creation of S41 or SSSI quality habitats)	Scrub buffer zones; land used for foraging bird assemblage for which a SSSI is designated.

Establishing likely zone of influence

For the purposes of this assessment, the Site is considered to be inside the 'zone of influence' of:

- Internationally important designations within 10km of the Site boundary.
- Nationally important designations within 2km of the Site boundary.
- Locally important designations within 2km of the Site boundary.
- Non-statutory designations within 2km of the Site boundary.

These distances identified set out above are considered sufficient for identifying the majority of designations which may be affected by the proposals. However, it is acknowledged that in certain circumstances effects beyond these distances are possible, and are considered for each case.

It should also be noted that certain ecological features have smaller 'zones of influence' than those mentioned above. For such features the appropriate zone of influence is described and justified as appropriate within the report, depending on their respective sensitivity to an environmental change.

The results of professionally accredited or published scientific studies have been used and referenced, where available, to establish the spatial and temporal limits of the changes likely to be caused by development activities and to justify decisions about the zone of influence.

Determining importance of ecological features

In determining the importance of ecological features, a range of guidelines and reference materials have been utilised, including:

- Criteria against which statutory and non-statutory nature conservation designations are selected (e.g. SSSI designation criteria; LWS selection criteria).
- Definitions for national and priority habitats.
- Publications and guidelines against which to establish the importance of particular populations or assemblages of species groups, e.g:
 - Bats: Wray *et al*, (2010) for evaluating bat populations and roosts.
 - Reptiles: Froglife (1999) for evaluating population size estimates for reptiles.
- Publications describing the conservation status of individual species (e.g. Red-data books).
- The Hedgerows Regulations to assess the importance of hedgerows.
- National, regional and local species Atlases.
- London Biodiversity Action Plan (BAP)
- Species/group population trends.

It should be noted that the legal protection which some species and their habitats receive are considered separately from 'importance' within this assessment as not all legally protected species are necessarily rare (e.g. common pipistrelle bat). Legal issues and the appropriate mechanism for dealing with any such constraint are addressed in the report.

It should also be noted that the social, community, economic or multifunctional importance attributed to ecological features are not assessed as they fall out of the scope of this Ecological Assessment.

Geographic frame of reference

In assigning importance to an ecological resource, the following geographic frames of reference are used:

- International
- National (i.e. England/Northern Ireland/Scotland/Wales);
- Regional (e.g. East Anglia);
- County (or Metropolitan e.g. in London);
- Local (or Parish)
- Site

The size, conservation status and the quality of features or species are all relevant in determining importance. Furthermore, the importance of a species and/ or habitat may vary depending on its geographical location.

Characterising effects and their significance

Effects of the proposed project or operation are characterised using the following terminology:

- Direct or indirect
- Beneficial or adverse
- Magnitude and/or extent
- Duration
- Reversibility
- Timing and frequency.

Appendix 3: Preliminary Ecological Appraisal: Protected species scoping survey

As part of the Preliminary Ecological Appraisal, an assessment of the potential for the habitats on Site to support protected or notable species was made. This assessment was based on the quality, extent and interconnectivity of suitable habitats, along with the results of the desktop study detailed in Section 3.1. This includes Species of Principal Importance as listed on Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006), and Red and Amber listed Birds of Conservation Concern (BoCC) as per Stanbury *et al.*, 2021 (see Appendix 1).

Protected and notable species considered within the protected species scoping survey for Downhills Park Tennis Courts, Haringey include the following:

- Plants and fungi: cornflower *Centaurea cyanus*, box *Buxus sempervirens* and bluebell *Hyacinthoides non-scripta*.
- Invertebrates: stag beetle *Lucanus cervus*, a Species of Principal Importance (SPI) listed on the NERC Act (2006) and also listed on the Wildlife and Countryside Act 1981 (as amended), small heath butterfly *Coenonympha pamphilus* and blue ground beetle *Carabus intricatus*.
- Fish: European eel *Anguilla anguilla*, river lamprey *Lampetra fluviatilis*, brown trout *Salmo trutta* subsp. *fario*.
- Amphibians: Natterjack toad *Epidalea calamita*, great crested newt *Triturus cristatus* and common toad *Bufo bufo*.
- Reptiles: Adder *Vipera berus*, common lizard *Zootoca vivipara*, slow-worm *Anguis fragilis*, grass snake *Natrix helvetica helvetica*.
- Birds: With special reference to species listed under Schedule 1 of The Wildlife and Countryside Act 1981 (as amended) and Species of Principal Importance.
- Mammals: Badger *Meles meles*, bats (all species), water vole *Arvicola amphibius*, otter *Lutra lutra*, hazel dormouse *Muscardinus avellanarius*, hedgehog *Erinaceus europaeus*, brown hare *Lepus europaeus*, harvest mouse *Micromys minutus*, European beaver *Castor fiber* and polecat *Mustela putorius*.

In each case the likelihood of presence of these protected species at the Site was classified as being either confirmed, high, moderate, low or negligible.

- **Confirmed:** The species is confirmed on the site during the Preliminary Ecological Appraisal, previous survey effort or recent records.
- **High:** Habitats are available onsite which are highly suitable for this species and there are records within the desktop study. The surrounding areas also provide widespread opportunities for the species which are well connected to the Site.

- **Moderate:** Some suitable habitat available on site for the species although not of optimum quality. Species is present with the desktop study.
- **Low:** Some suitable habitat available on site for the species but this is low value and possibly of small scale or with poor connectivity. No, or very few, records returned in the desktop study.
- **Negligible:** No suitable habitat available for the species, or very little poor-quality habitat.

This protected species scoping survey is designed to assess the *potential* for presence or absence of a particular species or species group, and does not constitute a full survey for these species.

See Table 5 below for details of the date, time and prevailing weather conditions recorded during the Site visit for the Preliminary Ecological Appraisal.

Table 5: Date, time and weather conditions of survey visit

Date	Time of survey	Weather conditions*
04 October 2022	14:00	Wind: BF2 Cloud: 7/8 Temp: 21°C Rain: None

*Wind as per Beaufort Scale / Cloud cover given in Oktas.

Appendix 4: Desktop study

An ecological desktop study was completed for the Site and the surrounding 10km for internationally protected sites, and the surrounding 2km for species data, nationally protected sites and locally protected sites. Data provided by Greenspace Information for Greater London (GiGL) identified a number of UK and European protected species, Species and Habitats of Principal Importance (as listed under Section 41 of the NERC Act 2006), and species of conservation concern within 2km of the Site. It should be noted that this is not a comprehensive list of the distribution or extent of the local flora and fauna of conservation importance. These species records are discussed in greater detail in the protected species scoping survey section (Section 4.3 below).

Details of internationally statutorily designated sites identified as part of the desktop study are displayed in Table 6 below. These consist of one Special Protection Area (SPA) and one Special Area of Conservation (SAC).

Table 6: Internationally designated sites within 10km of Downhills Park Tennis Courts

Site name	Area (ha)	Distance and direction	Reasons for selection
Lea Valley SPA	451.3	2.26km E	A series of embanked water supply reservoirs, sewage treatment lagoons, and former gravel pits extending along about 24km of the valley from near Ware southward to Finsbury Park in London. These water bodies support internationally important numbers of wintering gadwall <i>Mareca strepera</i> and shoveler <i>Spatula clypeata</i> and nationally important numbers of several other bird species. The site also contains a range of wetland and valley bottom habitats, both human-made and semi-natural, which support a diverse array of wetland fauna and flora.

Site name	Area (ha)	Distance and direction	Reasons for selection
Epping Forest SAC	1628.87	6.26km E	Epping Forest represents Atlantic acidophilous beech forests in the north-eastern part of the habitat's UK range. Although the epiphytes at this site have declined, largely as a result of air pollution, it remains important for a range of rare species, including the moss <i>Zygodon forsteri</i>. Further, records of stag beetle are widespread and frequent throughout Epping Forest; the site straddles the Essex and east London population centres. Epping Forest is a very important site for fauna associated with decaying timber, and supports many Red Data Book and Nationally Scarce invertebrate species.

Details of statutorily designated sites identified as part of the desktop study are displayed in Table 7 below. These consist of one Local Nature Reserves (LNR).

Table 7: Statutorily designated sites within 2km of Downhills Park Tennis Courts

Site name	Area (ha)	Distance and direction	Reasons for selection
Railway Fields LNR	0.87	1.6km SW	Railway Fields is an educational nature reserve with a mosaic of habitats supporting a diverse flora, and includes an environmental education centre.

Details of non-statutorily designated sites identified as part of the desktop study are displayed in Table 8 below. These consist of 27 Sites of Importance for Nature Conservation (SINCs). However, due to the extent and nature of the proposed works, it is considered appropriate to only consider those within the Site or within 1km of the Site boundary. Accordingly, only non-statutorily designated sites within 1km of the Site are set out in Table 7 below.

Table 8: Non-statutorily designated sites within 1km of Downhills Park Tennis Courts

Site name	Area (ha)	Distance and direction	Reasons for selection
Chestnuts Park SINC (Local)	5.14	0.64km S	- Habitats onsite include amenity grassland, hedgerows, planted shrubbery, scattered trees and semi-improved neutral grassland. - Designated for being accessible greenspace in an area of deficit.
Lordship Recreational Ground SINC (Local)	12.08	0.03km N	- Habitats onsite include amenity grassland, a waterbody, running water, scattered trees, secondary woodland and wet grassland. - The most valuable habitat is the stretch of The Moselle and the pond.
Downhills Park SINC (Local)	6.57	Onsite	Habitats onsite include amenity grassland, flower beds, planted shrubbery, scattered trees and secondary woodland
Tower Gardens SINC (Local)	1.33	0.91km N	- Habitats onsite include amenity grassland, scattered trees, scrub and secondary woodland. - Designated for being accessible greenspace in an area of deficit.
Bruce Grove Wood SINC (Local)	0.78	1.00km E	Habitats onsite include amenity grassland, secondary woodland, semi-improved neutral grassland and veteran trees.

Appendix 5: Preliminary Ecological Appraisal: Species lists

Please note that these lists are intended to be incidental records and do not constitute a full survey of the site. Relative abundance for plants is given using the DAFOR scale.

Habitat 1: g4 - Modified grassland

Common Name	Systematic Name	Relative abundance
Perennial rye-grass	<i>Lolium perenne</i>	D
White clover	<i>Trifolium repens</i>	A
Chickweed	<i>Stellaria</i> sp.	A
Greater plantain	<i>Plantago major</i>	F
Dove's-foot crane's-bill	<i>Geranium mole</i>	F
Ribwort plantain	<i>Plantago lanceolata</i>	F
Yarrow	<i>Achillea millefolium</i>	F
Dandelion	<i>Taraxacum</i> agg.	F
Common daisy	<i>Bellis perennis</i>	F
Black horehound	<i>Ballota nigra</i>	O
Wood avens	<i>Geum urbanum</i>	O
Fleabane	<i>Erigeron</i> sp.	O
Broad-leaved dock	<i>Rumex obtusifolius</i>	O
Herb-Robert	<i>Geranium robertianum</i>	O
Ground ivy	<i>Glechoma hederacea</i>	O
Shepherd's purse	<i>Capsella bursa-pastoris</i>	O
Wall barley	<i>Hordeum murinum</i>	O

Habitat 2: Line of trees – w1g7

Common Name	Systematic Name	Relative abundance
London plane	<i>Platanus × acerifolia</i>	F
Ash	<i>Fraxinus excelsior</i>	O
Sweetgum	<i>Liquidambar styraciflua</i>	O
Silver birch	<i>Betula pendula</i>	O
Sycamore	<i>Acer pseudoplatanus</i>	O

Common Name	Systematic Name	Relative abundance
Willow	<i>Salix</i> sp.	O
Alder	<i>Alnus glutinosa</i>	O
Crab apple	<i>Malus sylvestris</i>	O
Beech	<i>Fagus sylvatica</i>	O
Holm oak	<i>Quercus ilex</i>	O
Ginko	<i>Ginkgo biloba</i>	O
Horse chestnut	<i>Aesculus hippocastanum</i>	O
Box elder	<i>Acer negundo</i>	O
Cherry	<i>Prunus</i> sp.	O
Italian alder	<i>Alnus cordata</i>	O
Cedar of Lebanon	<i>Cedrus libani</i>	O

Developed land; sealed surface – u1b

Common Name	Systematic Name	Relative abundance
Bramble	<i>Rubus fruticosus</i> agg.	O
Creeping buttercup	<i>Ranunculus repens</i>	O

Habitat 3: Suburban/ mosaic of developed/natural surface – u1d

Common Name	Systematic Name	Relative abundance
Bay laurel	<i>Laurus nobilis</i>	O
Firethorn	<i>Pyrocantha</i> sp.	O
Holly	<i>Ilex aquifolium</i>	O
Cherry laurel	<i>Prunus laurocerasus</i>	O
Elder	<i>Sambucus nigra</i>	O
Jerusalem artichoke	<i>Helianthus tuberosus</i>	O
Snowberry	<i>Symphoricarpos albus</i>	R

Appendix 6: Site photographs

Photograph 1: Modified grassland – g4



Photograph 2: Line of trees – w1g7



Photograph 3: developed land; sealed surface – u1b



Photograph 4: Building 1 – u1b5



Photograph 5: Suburban/ mosaic of developed/ natural surface – u1d (1160)



Photograph 6: Deadwood



Appendix 7: Enhancement features

11.1.1. Bird box recommendations

A large number of bird boxes are available, designed for the specific needs of individual species. These are normally either designed to be mounted onto trees, external walls or integrated into a building. In general, bird boxes should be mounted out of direct sunlight and prevailing winds, out of reach of predators, with suitable foraging habitat for the subject species close by. Bird boxes should also be left up over winter as they can provide useful roosting sites for birds in bad weather.

Nest boxes should be cleaned at the end of each bird breeding season. All nesting material and other debris should be removed from the box. It should then be scrubbed clean with boiling water to kill any parasites (avoid using any chemicals). Once the box is clean, it should be left to dry out thoroughly. Under the Wildlife and Countryside Act 1981 it is an offence to disturb breeding birds and therefore annual cleaning is best undertaken from October to January when there is no risk of disturbing breeding birds.

Generalist boxes

Boxes to attract garden birds and woodland breeding species such as tits, nuthatch, redstart and pied flycatcher can be placed in gardens, orchards, woodlands and a wide variety of other habitats. The species of birds attracted to the box will depend upon the size of the entrance hole (see table below).

Boxes should be fixed two to five metres up a tree or wall, out of the reach of predators such as domestic cats. Unless there are trees or buildings, which give permanent shelter, it is best facing between north and east.

Entrance Hole	Species	
28mm	Blue-, Marsh-, Coal- and Crested Tit, Wren.	
34mm	Great-, Blue-, Marsh-, Coal- and Crested Tit, Nuthatch, Pied Flycatcher, House Sparrow	
40mm	Redstart and Black Redstart	
50m	Starling	
60m	Spotted Flycatcher	

Schwegler No. 1B General Purpose Nest box	www.schwegler-nature.com Suitable for various garden and woodland birds, created with different sized entrance holes to avoid competition between species. Other variations (e.g. 2M) can be free hanging, to deter predators.	
Entrance Hole	Species	
26 mm	Blue-, Marsh-, Coal- and Crested Tit, possibly Wren. All other species are prevented from using the nest box due to this smaller entrance hole	
32 mm	Great-, Blue-, Marsh-, Coal- and Crested Tit, Redstart, Nuthatch, Pied Flycatcher, Tree and House Sparrows.	
Oval	Redstart; also used by species that nest in the diameter 32 mm boxes. However, because more light enters the brood chamber, it is preferred by Redstarts.	

11.1.2. Bat box recommendations

A wide range of bat boxes are available to suit a variety of species and design requirements. Bat boxes can be easily mounted on trees (dependent on box design).

Boxes are more likely to be inhabited if they are located where bats feed and it may help to place the box close to features such as tree lines or hedgerows, which bats are known to use for navigation and can provide immediate cover for bats leaving the roost. Boxes should be placed in areas sheltered from strong winds and are exposed to the sun for part of the day. Access to any bat roosting features should not be lit and should also be at a reasonable height to avoid predation (at least 2m if possible, preferably 4-5m).

Example	Description	Picture
Example	Description	Picture
Vivara Pro Woodstone bat box	https://www.nhbs.com/equipment Dimensions: (h) 250 x (w) 190 x (d) 165 mm, Weight: 4.5 kg This box is made from woodstone and it is designed to last for years. The box can be attached to either a wall or a tree and should be sited at a height of at least 3 m from the ground. Bats prefer to change roosts to benefit from varying ambient temperatures, so bat boxes should ideally be clustered in small groups.	
Eco Kent bat box	https://www.nestbox.co.uk/products/eco-kent-bat-box Dimensions: (h) 52 x (w) 23 x (d) 16 cm Weight: 4.5kg This bat box is ideal for crevice-dwelling species such as common and soprano pipistrelle. It has a 100% recycled outer shell to protect the wooden interior to create a long-lasting box. It is also a self-cleaning, maintenance free box.	
Bark Boxes	https://www.barkboxes.co.uk/ Bark Boxes are constructed using a tough felt made of recycled polyamide combined with a cement and recycled cellulose fibre mix. The cellulose fibre will allow the outer layers to mellow and support lichens and mosses in time. Each box has a curved back to fit well on a tree. Boxes have endoscope holes for inspection and/or drainage holes. They come in a range of sizes and can be designed for crevice-dwelling and void-dwelling bats, including maternity chambers and hibernation boxes.	 

Example	Description	Picture
Example	Description	Picture
Schwegler General Purpose Bat Box 2F	www.schwegler-nature.com Height: 33 cm Weight: approx. 3.8 kg External diameter: 16 cm Installation: Hanging A general purpose box, suitable for all species.	
Schwegler General Purpose Bat Box 2F with Double Front Panel	www.schwegler-nature.com Height 33 cm Weight: approx. 4.1 kg External diameter: 16 cm Installation: Hanging This box is suitable for crevice dwellers, such as Nathusius' Pipistrelle, Daubenton's Bat and Common Pipistrelle.	
Schwegler 1FF	www.schwegler-nature.com Dimensions: 14(d) x 27(w) x 43(h) cm Weight: 9.9 kg Installation: Hanging This box is suitable for crevice dwellers, such as Nathusius' Pipistrelle, Daubenton's Bat and Common Pipistrelle. This box minimises temperature fluctuations in spring and autumn and is self-cleaning.	

11.1.3. Invertebrate recommendations

Example	Description	Picture
Stag beetle loggery	https://ptes.org/9-top-ways-to-help-stag-beetles-in-your-garden/ Large volume deadwood dug into the soil (a minimum of 500mm depth) to provide food for the larvae of deadwood specialists such as stag beetles.	Build a log pyramid If you don't already have stumps or mature trees and shrubs, you can provide a home for stag beetles by building a log pyramid. Bury logs from a broadleaved tree upright in the soil, with up to 50cm under the ground.  (image credit – PTES, 2021)
Artificial rot hole	Once felled, an artificial cavity can be carved easily with a chainsaw to create a rot hole. The ensuing pool and rotting wood provide habitat for a number of specialist invertebrates. These examples were targeted at a pinewood specialist in Caledonian forests in Scotland, but are of equal value to other species in lowland England. Taylor <i>et al.</i> (2021) British Wildlife 32(8) p547	 (image credits - Athayde Tonhasca via Scotlandsnature.blog, 2020)

11.1.4. Sensitive lighting recommendations

Artificial lighting has been shown to have a negative impact on bats. It can cause bats to desert or become entombed within a roost, affect feeding behaviour and create barriers which bats cannot cross. There are several factors to consider within a sensitive lighting scheme in order to minimise light spill onto features identified as important for bats during previous survey effort.

Avoid lighting the key habitats and features

Where possible, there should be no artificial lighting on any roost entrances or associated flight paths, as well as habitats or features used by large numbers of bats, rare species or highly light-averse species. An unlit 'dark zone' should be created around the features of importance through the careful placement of artificial lighting and structures such as walls or fences. It is important to remember that there is no legislation requiring a road or area to be lit.

Appropriate luminaire recommendations

Bats are particularly sensitive to blue, green and UV light and therefore luminaires should be selected which emit "warm white" light (2700K to 3000K) and wavelengths with peaks greater than 550nm. LED lights should be used where possible as they fit these criteria and have other advantageous characteristics such as sharp cut-offs, usability at lower intensities and dimming capabilities.

Column height and timing

Column height should be carefully considered in order to minimise light spill. Luminaires should always be mounted on the horizontal and only luminaires with an upward light ratio of 0% and with good optical control should be used. Low-level lighting from bollards should be avoided where possible, and specialist bollard or low-level downward directional luminaires should only be used as directed by the lighting professional. Any external security lighting should be set on motion sensors and short (one minute) timers.

Internal lighting

Where possible, the site design should minimise the number and size of windows facing the features of importance. Where windows are required, recessed lighting should be used rather than pendant lighting to minimise light spill. Furthermore, factory-tinted glazing treatments can be used to minimise internal light transmission.

Appendix 4: EcIA Checklist

EcIA Criteria			Yes No NA	Page reference number(s)
Pre-app.scope	1	Where pre-application advice has been received for the Local Planning Authority and/or an NGO and/or statutory body (e.g. NE DAS, NRW DAS), it has been fully accounted for in the EcIA.	N/A	-
	2	The scope, structure and content of the EcIA is in accordance with published good practice	✓	1
Surveys, Sites, Species and Habitats	3	Adequate and up-to-date: a. Desk study has been undertaken b. Phase 1 habitat survey (or equivalent) has been undertaken c. Phase 2 ecology surveys have been undertaken (where necessary)	✓	11-12, 41-42
	4	All statutory and non-statutory sites likely to be significantly affected are clearly and correctly identified	✓	15, 41-42
	5	All protected or priority species and priority habitats likely to be significantly affected are clearly and correctly identified, and adequate surveys have been undertaken to inform the baseline	✓	15-17, 39
	6	Any invasive non-native plant species present are clearly and correctly identified	✓	9-10, 15
	7	Where a separate PEA report states that Phase 2 ecology surveys are required, these have been undertaken in full and results submitted with the application (or lack of such surveys is justified)	N/A	-
Impacts and Effects	8	The assessment is based on clearly defined development proposals along with relevant drawings/plans (and any plans used are the same version number as those submitted with the application) or	✓	6, 18
	9	The residual ecological effects are considered to be not significant at any geographical scale irrespective of the detailed development proposals, and the assessment is based on a worst-case scenario	N/A	
	10	The report describes and assesses all likely significant ecological effects (including cumulative effects) clearly stating the geographical scale of significance (where relevant)	✓	18-21
Mitigation, Compensation and Enhancement	11	The mitigation hierarchy has been clearly followed	✓	18-21
	12	The report: a. Clearly identifies the proposed mitigation and compensation measures, and explains how these will adequately address all likely significant adverse effects b. Includes, where necessary, proposals for post-construction monitoring c. Recommends how proposed measures may be secured through planning conditions/obligations and/or necessary licences	✓	18-21
	13	A summary table of proposed mitigation and compensation measures has been provided	✓	22
	14	The need for any mitigation licences required in relation to protected species is clearly identified	N/A	-
	15	Proposals to deliver ecological enhancement/Biodiversity Net Gain have been provided	✓	23, 48-53
Competence/Good Practice	16	Limitations of the ecological work have been correctly identified and the implications explained	✓	13
	17	All relevant key timing issues (e.g. site vegetation clearance or roof removal) that may constrain or adversely affect the proposed timing of the development have been identified	✓	19-20
	18	All ecological work and surveys accord with published good practice methods and guidelines OR deviation from such guidelines is made clear and fully justified, and the implications for subsequent conclusions and recommendations made explicit in the report	✓	11
	19	All ecologists and surveyors hold appropriate species licences (where relevant) and/or have all necessary competencies to carry out the work undertaken	✓	8

EcIA Criteria			Yes No NA	Page reference number(s)
Conclusions	20	The report clearly identifies where the proposed development complies with relevant legislation and policy, highlighting any possible non-compliance issues, and highlighting circumstances where a conclusion cannot be drawn as it requires an assessment of non-ecological issues (such as socio-economic ones)	✓	7-8, 27-35
	21	The report provides a clear summary of losses and gains for biodiversity, and a justified conclusion of an overall net gain for biodiversity	✓	4, 24
	22	Justifiable conclusions based on sound professional judgement have been drawn as to the significance of effects on any designated site, protected or priority habitat/species or other ecological feature, and a justified scale of significance has been stated	✓	4, 24



MKA

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