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HMP Ford, Arundel

Ecological Appraisal

Prepared on behalf of

Faithful + Gould

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Ecological Planning & Research Ltd

HMP Ford, Arundel

Ecological Appraisal

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HMP Ford, Arundel

Ecological Appraisal

1. INTRODUCTION

Brief

- 1.1 Ecological Planning & Research Limited (EPR) was commissioned by the Faithful + Gould to carry out an ecological appraisal (EA) of a redevelopment comprising of both new build and refurbishment work at HMP Ford, Arundel, West Sussex, BN18 0BX (central grid reference TQ 0009 0283; hereafter referred to as 'the Site').

Background

- 1.2 The Site is a Category D prison and redevelopment of the Site includes the refurbishment of existing structures, construction of new buildings (including two 60 bed accommodation blocks and healthcare facility) and car parking spaces.

The Study Area

- 1.3 **Map 1** shows the location of the Site, which comprises seven parcels. The site is located east of Chichester, to the west of Worthing and south of the South Downs National Park.
- 1.4 For the purpose of this appraisal, the land parcels have been named Survey Areas 1, 2, 3, 4, 5,6 and 7 (see **Map 2**).
- 1.5 The seven survey areas sit within the HMP Ford prison, a developed area comprising of mainly roads and buildings with associated hardstanding and several areas of grassland. The wider landscape mainly agricultural land with the River Arun to the east.

National Character Area

- 1.6 The Site is located within Natural England's South Coast Plain National Character Area (NCA; Number 126). The area is characterised by a flat, coastal landscape with an intricately indented shoreline lying between the dip slope of the South Downs and South Hampshire Lowlands and the waters of the English Channel, Solent and part of Southampton Water.
- 1.7 The underlying geology is part of the Hampshire Basin which stretches to Dorset and the northern half of the Isle of Wight, within the chalk borders of the Purbeck Hills, Cranborne Chase, South Downs and Salisbury Plain.
- 1.8 Some of the key characteristics of the NCA, and which are of relevance to the development proposals, include stretches of farmed land between developed areas, often with large arable fields defined by low hedges or ditches. The majority of the landscape is coastal with open coastal plain and shorelines, tree cover is limited to isolated wind-sculpted woodlands and shelterbelts.
- 1.9 Key challenges identified by the NCA is to accommodate the needs of often competing interests. Protection against flooding is a priority to encourage growth and allow internationally important

habitats and species to flourish, whilst also maintaining the productive landscape and historic and geological features of the area.

- 1.10 Within each NCA, there are associated Statements of Environmental Opportunity (SEO). Consideration of these SEOs have been made with respect to potential biodiversity net-gains that a proposed development at the Site could deliver. SEO 2 is relevant to the Site and states:

SEO 2: Plan for the creation of a strong landscape framework within and around major settlements and identified growth areas, while managing and enhancing existing greenspace and access, and balancing the needs of agriculture, communities and the natural environment.

Biodiversity Opportunity Areas

- 1.11 Biodiversity Opportunity Areas (BOAs) are County-level initiatives that focus conservation efforts in the best areas. The study area sits adjacent to the Climping and Houghton BOA. Therefore, this has been used to inform potential opportunities to secure biodiversity net gains on the development Site.

Landscape History

- 1.12 The surrounding landscape comprises of agricultural land and coastal habitat, includes several major inlets which have particularly distinctive local landscapes and intertidal habitats of international environmental importance for wildfowl and waders. The site is surrounded by several settlements with Tortington to the north, Lyminster to the east, Climping to the south and Barnham to the west.
- 1.13 A review of historical maps including the OS six-inch map sheet LXIII published in 1875, shows the area to be historically agricultural land. The land use remains the same on the 1938 OS six-inch map.
- 1.14 A land use change is noted within the OS one-inch map (Sheet 181 – Chichester) published in 1960 which shows buildings on Site; although, the buildings are not the current prison buildings seen on Site today.
- 1.15 A search through old satellite images on Google Earth Pro shows that the Site has retained its current use as a prison with industrial units to the southwest since 2001. Therefore, building of the prison must have occurred after 1960 but before 2001.

Physical Environment

- 1.16 The British Geological Survey's OpenGeoscience Viewer indicates the bedrock below the site reflects the complex geology described in the NCA. The Site is underlain by the Lewes Nodular Chalk Formation, Seaford Chalk Formation, Newhaven Chalk Formation, Culver Chalk Formation and Portsdown Chalk Formation, which sand and gravel superficial deposits.
- 1.17 The Government's Flood Map for Planning shows the Site is in flood zone 1 and has a low probability of flooding.
- 1.18 The Site lies on a relatively low-lying land.

Scope

- 1.19 The purpose of this ecological appraisal is to obtain and present information on potential ecological constraints and opportunities that may be presented to the Proposals. Advice on further actions to address constraints and maximise opportunities in order to enable the proposals to proceed in accordance with nature conservation legislation and policy is also provided. Please note that the results of an ecological appraisal are not equivalent to a full Ecological Impact Assessment (EclA) and so potentially significant ecological effects arising from a Proposal may not be fully understood at the time of reporting on an ecological appraisal.
- 1.20 EPR's approach takes account of the Chartered Institute of Ecology and Environmental Management's (CIEEM) advice in Guidelines for Ecological Impact Assessment in the UK and Ireland (Sept 2018).
- 1.21 An ecological appraisal comprises two main elements: 1) A desktop review of the ecological and policy context; and 2) a field survey of the development site and, where possible, any other areas likely to be affected.
- 1.22 The following articles of nature conservation legislation and planning policy are of potential relevance to the Proposals, and have been considered as part of this appraisal:
- The Conservation of Habitats and Species Regulations 2017;
 - The Wildlife and Countryside Act 1981 (as amended);
 - The Countryside and Rights of Way (CROW) Act 2000;
 - The Natural Environment and Rural Communities (NERC) Act 2006;
 - The Protection of Badgers Act 1992;
 - The National Planning Policy Framework (NPPF)(2019)
 - The Mammals Acts 1996; and
 - Adopted Arun Local Plan 2018. Relevant Policies:
 - Policy C SP1- Countryside
 - Policy GI SP1 - Green Infrastructure and development
 - Policy HER DM3 - Conservation Areas
 - Policy ENV SP1- Natural Environment
 - Policy ENV DM3 - Biodiversity Opportunity Areas
 - Policy ENV DM4 - Protection of trees
 - Policy ENV DM5 - Development and biodiversity
- 1.23 In addition to the above, biodiversity objectives detailed in the following documents have been considered:
- Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services;
 - The 25 Year Environment Plan; and

- Biodiversity targets and objectives in the Sussex BAP (2010) managed by the Sussex Biodiversity Partnership

1.24 Further information on the above is provided in **Appendix 1**.

Methods and Constraints

- 1.25 This ecological appraisal has drawn on information collected through both an extensive desktop study, and a field visit carried out by Katrina Diedericks BSc GradCIEEM of EPR and Claire Clarke on 19th August 2020. The methodology used has been described in more detail in **Appendix 2**.
- 1.26 The Phase 1 habitat survey was undertaken in August. Ecological Appraisals can be conducted throughout the year and August is considered to be an optimal month for conducting Ecological Appraisals.

2. NATURE AND EXTENT OF PREDICTED BIOPHYSICAL CHANGES

Likely Biophysical Changes and Zone of Influence

- 2.1 Certain activities associated with the preparation, construction and operation of the proposed development are likely to generate biophysical changes. These changes, and the Zone of Influence (Zoi) over which they are likely to occur, are summarised in **Table 2.1** below.

Table 2.1: Summary of predicted changes and Zone of Influence.

Activity	Potential Impact	Zone of Influence
<i>Site Clearance and Construction Phase</i>		
Access and travel on /off site and movement of materials to/from or within the site.	Noise/visual/lighting disturbance of sensitive species.	Predominantly site and immediate surrounds, but potentially up to 4km.
Assembly and storage areas for machines and material; construction compounds	Loss and fragmentation of habitats. Noise/visual/lighting disturbance of sensitive species.	Predominantly site and immediate surrounds, but potentially up to 4km.
Vegetation clearance, ground, excavation and structural work, demolition, and alteration operations.	Loss and fragmentation of habitats. Damage to sensitive habitats. Direct harm to sensitive species. Noise/visual/vibration/lighting disturbance of sensitive species.	Predominantly site and immediate surrounds, but potentially up to 4km.
Lighting of work area	Disturbance to sensitive species.	Predominantly site and immediate surrounds, but potentially up to 4km.
<i>Operational Phase</i>		
Lighting of buildings	Disturbance to sensitive species.	Predominantly site and immediate surrounds, but potentially up to 4km.
Implementation of landscape design and habitat management.	Enhancement/creation of habitats.	Habitat management can benefit a range of species; therefore, the Zoi would potentially be up to 4km
Physical presence of structures	Loss and fragmentation of habitats. Disturbance to sensitive species.	Predominantly site and immediate surrounds, but potentially up to 4km.

- 2.2 Most of the activities and resultant biophysical changes listed in **Table 2.1** above are unlikely to have an effect beyond the proposed development and its immediate surroundings. There are some exceptions to this which are described below.
- 2.3 Due to their mobile nature, the Zoi for bats is likely to extend further afield, potentially up to 4km for the most common and larger bat species that are most likely to occur in the landscape and surrounding the site. (i.e. Noctule *Nyctalus noctule* and/or Serotine *Eptesicus serotinus*). The

4km distance is based on Bat Conservation Trust Core Sustenance Zones (CSZ), (BCT, 2016), and the biological records return.

2.4 It is generally considered that Great Crested Newt *Triturus cristatus* will use terrestrial habitat within 250m and potentially up to 500m from a breeding pond (English Nature (now Natural England), 2001). Therefore, Great Crested Newt in any pond within 500m of the Site and not isolated by barriers to movement could be affected by the proposed development in the absence of mitigation. However, surveys at a distance greater than 250m from a pond are considered to be necessary only when all of the following conditions are met (Natural England, 2015):

- Maps, aerial photos, walk over surveys or other data indicate that the pond(s) has potential to support a large Great Crested Newt population;
- The footprint has particularly favourable habitat for Great Crested Newt;
- The development would have a substantial negative effect on that habitat; and,
- There is an absence of dispersal barriers.

2.5 In view of the above, the potential ZOI of the proposed development for Great Crested Newt is considered to extend to all suitable Great Crested Newt terrestrial habitat and ponds within 250m of the boundary of the Site.

3. RESULTS OF ECOLOGICAL APPRAISAL

Introduction

3.1 The findings of the ecological appraisal are set out below, including:

- The potential for Important Ecological Features (IEFs) to be present within the Zol that could be affected by the Proposals;
- Potentially significant impacts (both positive and negative) that could occur as a result of the predicted biophysical changes described in **Section 2**, in the absence of impact avoidance and mitigation measures;
- A broad overview, where possible, of the measures that are likely to be required to avoid, mitigate and as a last resort compensate for significant negative effects on IEFs;
- Opportunities to deliver net gains in biodiversity in accordance with the aspirations of national and local planning and biodiversity policy, including Section 15 of the NPPF; and
- Recommendations for further survey necessary to inform assessment and design of the above, compliance with policy, legislation and/or ongoing management of the site.

Designated Sites

3.2 The statutory and non-statutory sites of nature conservation importance up to 2km of the site are shown on **Map 1**. The site is not situated within any statutory or non-statutory designated sites.

Statutory Designated Sites

3.3 No statutory designated sites are located within 2km of the site.

Non-Statutory Designated Sites

3.4 There are two non- statutory designated sites within 2km of the Site:

- A259 Eldon Way Designated Road Verge (DRV); and
- Bridge Road Littlehampton (DRV).

3.5 Both DRVs are located over 1.3km east of the Site. Both are designated for their special wildlife interest. Given the separation distance and the likely character and scale of the proposed development, no viable pathway to an impact upon the reserve is considered to exist.

Habitats

3.6 The distribution of broad habitat types and features noted during the Site visit is presented on **Map 2** and described further below.

3.7 All survey areas (1-7) on Site comprise either multiple buildings with associated hardstanding, amenity grassland, a mosaic of ephemeral/short perennial and bare ground, and/or scattered tree/ornamental planting.

- 3.8 Given the management of the grasslands on Site they are very unlikely to support priority plant species, and the floral diversity of all grasslands areas on Site is poor comprising mostly Ryegrass *Lolium perenne*. Whilst the biological records search returned several priority plant species, the records are associated with woodland within the wider landscape.
- 3.9 The boundary habitats of the different survey areas varied, but generally comprised of hardstanding/brick walls, ornamental planting, trees, hedgerows, and fences. In some places there was no obvious boundary. All trees identified within the survey areas have been planted after 1960 (reference to the OS one-inch to the mile map 1960) and therefore are not considered mature/veteran trees.
- 3.10 All the habitats within the ZOI were either of negligible or little ecological importance and have not been considered further for their botanical value, although their potential role in supporting faunal populations is considered further below.
- 3.11 Redevelopment of the Site presents an opportunity to enhance retained habitats to achieve biodiversity gains. As identified within the Adopted Arun Local Plan 2018 (Policy ENV SP1), a key aim is to promote the creation of new areas for habitat and species. As such, incorporating native trees of local provenance within the proposals, including species producing a variety of flowers and fruiting bodies, is recommended to provide a valued resource for local faunal species.
- 3.12 Preparation of a Construction Environmental Management Plan (CEMP) and Landscape & Ecological Management Plan (LEMP) for retained, enhanced, and newly created habitats is recommended.

Fauna

Breeding Birds

- 3.13 The data search returned 68 species of bird within 2km of the Site, see **Map 3a**. The assemblage of buildings, hedgerows, scattered trees and grassland on Site provide suitable nesting opportunities and foraging resources for common and widespread species and Bird Species of Conservation Concern (BoCC).
- 3.14 All birds are protected under the Wildlife and Countryside Act 1981 (as amended), making it an offence, with certain exceptions (e.g. game birds), to intentionally kill, injure or take any wild bird and to take, damage or destroy their nests or eggs.
- 3.15 Given the assemblage of common and widespread species likely to be present on site, further breeding bird surveys are not considered necessary; however, mitigation measures during Site clearance are required to ensure legal compliance.
- 3.16 Any vegetation clearance should be conducted during the period mid-September to February (inclusive), which is outside of the bird nesting season.
- 3.17 If this is not possible and vegetation clearance is required within the bird nesting season (March to mid-September, inclusive), a nesting bird check will need to be undertaken by a suitably experienced ecologist prior to the commencement.

- 3.18 If any active nests are discovered, these will need to be retained and protected in situ until they are no longer in use by nesting birds. In addition, all buildings should be surveyed before work commences to check for nesting bird occupation.
- 3.19 Enhancement opportunities for birds would include the placement of bird boxes on retained trees or integrated within new buildings on site, either within the survey areas or within the wider prison landscape.

Bats

- 3.20 The data search returned 15 species of bat within 2km of the Site, see **Map 3b**. The closest record is for a Common pipistrelle *Pipistrellus pipistrellus* located approximately 280m south of survey area 1.
- 3.21 All buildings identified for redevelopment within the survey areas were subjected to a building inspection. Building assessments involved external and (where possible) internal inspections based on survey methods described in the Bat Survey Guidelines (BCT, 2016). Each building was categorised for its suitability to support a bat roost. All buildings assessed as having bat roosting suitability are noted below. Building 3 will not be impacted upon by the redevelopment and so was not assessed for its bat roosting suitability.
- 3.22 The buildings that contained features suitable for roosting bats, are as follows and further details are provided in **Appendix 3**:
- B3 (survey area 1) - Moderate bat roosting suitability; and,
 - B2 (survey area 6) - Low bat roosting suitability.
- 3.23 No evidence of roosting bats was recorded within the buildings inspected during the site walkover.
- 3.24 All trees within the survey areas were subjected to a Ground Level Tree Inspection to assess their suitability for roosting bats and no trees within the survey's areas were identified as having the potential to support roosting bats.
- 3.25 Overall, the habitats within the ZOI are likely to provide opportunities for foraging and commuting bats. The Site is located approximately 220m west of the river Arun which is connected to the wider landscape and is likely to be used regularly by foraging bats.
- 3.26 All species of British bat and their places of refuge are protected under the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act 1981 (as amended).
- 3.27 The revised and updated Planning Practice Guidance (PPG; MHCLG, 2014) states:
- “an ecological survey will be necessary in advance of a planning application if the type and location of development are such that the impact on biodiversity may be significant and existing information is lacking or inadequate”*
- 3.28 and it also states:

“local planning authorities should only require ecological surveys where clearly justified, for example if they consider there is a reasonable likelihood of a protected species being present and affected by development.”

- 3.29 In accordance with Bat Conservation Trust Bat Survey Good Practice Guidelines (2016), which are supported by Natural England, and to accord with biodiversity related legislation and planning policy, it is recommended that targeted bat survey work be conducted on Site to assess the Site's value for the local bat assemblage and to assess the potential effects of the redevelopment on the local assemblage, including any roosts present within buildings on Site.
- 3.30 If the proposals have the potential to impact upon any bat roosts present then work is likely to need to be undertaken under a European Protected Species Licence (EPSL), although any such requirement would be confirmed following the further survey work recommended. A licence can only be granted once full planning permission has been received and will typically describe sensitive working methods, to avoid harm to bats and the provision of compensatory roosting opportunities.
- 3.31 Lighting of new buildings with warm-white lighting is recommended to minimise impacts on the local bat assemblage. Enhancement opportunities for bats would include the placement of bat boxes on retained trees or integrated within new buildings on site, either within the survey areas or within the wider prison landscape.

Great Crested Newts and Common Amphibians

- 3.32 Five species of amphibian have been recorded within 2km of the Site. These were for Common Frog *Rana temporaria*, Common Toad *Bufo bufo*, Smooth Newt *Lissotriton vulgaris*, Palmate Newt *Lissotriton helveticus*, and Great Crested Newt. The closest record is for Common Frog located approximately 275m south of the survey area 1 (see **Map 3C**).
- 3.33 The closest approved European Protected Species Mitigation Licence return is located 1.1km to the south of the survey area 1. This record is terrestrially connected to the Site ; however, two roads between the site and record acts as barriers to dispersal. The nearest GCN record to the site is 690m to the south of survey area 1.
- 3.34 Five offsite waterbodies have been identified via OS mapping and aerial images within 250m of the site (excluding the flowing River Arun considered unsuitable for GCN). The location of these are shown on **Map 4** and further details are provided below in **Table 3.1**.
- 3.35 **Table 3.1: Location and associated details of Waterbodies within the potential Zol of the proposals.**

Water body	Grid reference	Visible on Aerial	Visible on OS Maps	Present on Historic Maps	Notes
P1	SU99830300	Yes	Yes	No	Pond, c.200m from closest point of survey area 6
P2	TQ00470316	Yes	Yes	No	Pond, c.250m from closest point of survey area 3
P3	TQ00490304	Yes	Yes	No	Pond, c.165m from closest point of survey area 3

P4	TQ00690317	Yes	Yes	Yes	Drain, c.385m from closest point of survey area 3
P5	TQ00710239	Yes	Yes	Yes	Drain, c.340m from closest point of survey area 2

- 3.36 The survey areas comprise mainly of buildings with associated hardstanding, and scattered trees and ornamental planting which provides negligible to poor quality terrestrial habitat for amphibians.
- 3.37 However, areas of less managed areas of ephemeral/short perennial species/gravel ground in survey area 7 and areas in the wider prison landscape could potentially provide low quality terrestrial habitat. The habitats adjacent to the Site provides low terrestrial habitat for amphibians.
- 3.38 Therefore, in order to determine the potential for GCN (and by extension other common amphibians) to be present within the Zol of the proposals, the waterbodies within 250m of the Site listed in **Table 3.1** should be assessed for their suitability to support breeding GCN using the Habitat Suitability Index (HSI) (Oldham, 2001). This work should ideally be conducted between May and the end of September (the optimum period for conducting waterbody assessments), but an estimate can still be made during the rest of the year (with limitations). Depending on the results of the HSI assessment, further surveys may be required to determine the presence or likely absence of breeding GCN within offsite ponds (and population size if present), to inform the mitigation measures that may be required to enable the development to proceed in accordance with the relevant legislation and policy listed in **Appendix 1**. If work on Site has the potential to impact upon GCN then work may need to be undertaken under a EPSL, but as above, any such requirement would be confirmed following the further survey work recommended.
- 3.39 Creation of waterbodies, log piles and artificial hibernacula within the development proposals will offer aquatic, foraging and over-wintering features for amphibians, along with other species such as reptiles and invertebrates.

Reptiles

- 3.40 Three common species of reptile have been recorded within 2km of the site (Common Lizard *Zootoca vivipara*, Slow-worm *Anguis fragilis* and Grass snake *Natrix Helvetica*) (see **Map 3C**). The closest record is for Common Lizard which was recorded approximately 670m west of the Site.
- 3.41 The habitats on Site have potential to provide foraging, commuting, refuge, and hibernating opportunities for common reptiles (likely Common Lizard, Grass Snake and Slow-worm). The Site is well connected to the wider landscape; therefore, it is possible that reptile species could be utilising suitable habitats on Site.
- 3.42 All reptile species are protected under the Wildlife and Countryside Act 1981 (as amended), which makes it is an offence to intentionally or recklessly kill or injure species of reptile.

- 3.43 If the grassland and boundary habitats are likely to be impacted by the development a reptile survey will be required to assess the presence or likely absence of reptile populations on Site and the need for mitigation measures as part of the development.
- 3.44 Enhancement opportunities for reptiles would include enhancement measure set out for amphibians in para 3.38.

Other Protected Species

- 3.45 The habitats on Site are not suitable for other protected species such as *Dormice Muscardinus avellanarius*, Water Vole *Arvicola amphibious*, Otter *Lutra lutra* and Invertebrates of conservation concern. Therefore, these species are not considered further in this report.

Other Species of Principal Importance

- 3.46 The grassland on Site provides suitable foraging habitat for European Hedgehog *Erinacaues europaeus*. This species is protected under the Wildlife and Countryside Act 1981 (as amended) and is listed as a Species of Principal Importance under the NERC Act 2006. Hedgehogs are also protected under the Mammals Acts 1996.
- 3.47 If any of the areas suitable for Hedgehogs is likely to be affected by the proposed development, then mitigation measures are likely to be required to ensure their protection. Such measures are likely to involve checking suitable areas prior to clearance followed by the relocation of any Hedgehogs found to suitable habitat nearby.
- 3.48 The sowing of a wildflower seed mix grassland either within the survey areas or within the wider prison landscape would benefit Hedgehogs and support other species which Hedgehogs prey upon.

4. SUMMARY AND CONCLUSIONS

Introduction

- 4.1 This Ecological Appraisal has identified that the habitats on Site are of low inherent ecological value but may support a range of protected or valued species, which could pose a constraint on development and will require further consideration. In combination with the geographical setting and connectivity to the wider landscape, the Site has the potential to support a range of ecologically important faunal assemblages including:

- European Protected Species and Priority S41 bats and amphibians;
- Priority S41 and BoCC bird species; and,
- Priority S41 reptiles.

Summary of Recommendations

Recommended Further Work

- 4.2 **Table 4.1** provides a summary of the further work recommended in **Section 3**, together with timings for surveys.

Table 4.1: Recommended further work.

Feature/Species	Further Surveys/ Required Mitigation	Action	Timing
Breeding birds	Nesting bird checks	A pre-commencement check to be undertaken before the removal of suitable nesting vegetation/boxes and building work.	Between May and the end of September. Any active nests identified will be left undisturbed until young have fledged.
Bats	Building surveys	Emergence/re-entry surveys on buildings with bat roosting suitability.	Between May and the end of September.
Great Crested Newts (and common amphibians)	Habitat Suitability Index Assessment & presence/likely absence survey	To assess the suitability of waterbodies in the wider landscape for GCN; further presence/likely absence survey may be required depending on the results of the HSI assessment.	Between May and the end of September.
Reptiles	Presence/likely absence survey.	Presence/likely absence survey.	1 set up visit followed by 7 survey visits March – October inclusive.

Recommendations for Impact Avoidance and Mitigation and Opportunities for Net Biodiversity Gain

- 4.3 Local Planning Authorities and Natural England are frequently requesting planning applications to submit a biodiversity metric to inform the decision-making process, and most often in the form of the Defra 2.0 metric. Therefore, prior to planning, a Biodiversity Net Gain (BNG) calculation should be conducted. This should be supported by interpretive maps, and it will identify whether the necessary net gains in biodiversity can be secured on site through the proposals, or whether further offsite measures need to be secured to meet the relevant policy requirements.
- 4.4 The following summarises the opportunities for incorporating impact avoidance and mitigation measures into the scheme, in addition to opportunities for delivering net biodiversity gains in accordance with National aspirations enshrined in the NPPF and 25 Year Environment Plan:
- Preparation or input into standard strategies - Construction Environmental Management Plan (CEMP); and Landscape & Ecological Management Plan (LEMP) for retained, enhanced and newly created habitats;
 - Removing vegetation/boxes suitable for supporting nesting birds outside of the nesting season where possible. If clearance within the bird nesting season is required, vegetation/boxes would be checked by a suitably experienced ecologist prior to clearance with any active nests left undisturbed until young have fledged;
 - A sensitive lighting strategy to minimise potential impacts on nocturnal wildlife, particularly bats, during both the construction and operational phases of development;
 - Sensitive clearance of suitable habitats for herptiles (if populations are recorded on Site), which may involve a translocation exercise and/or destructive search under a EPSL. This would be undertaken during the active reptile/amphibian season and under the supervision of an ecologist. Any animals found would be relocated to a 'receptor area' which would be at a safe distance from the construction works;
 - Retention of woodland and grassland edges to provide dispersal corridors for wildlife;
 - Incorporation of suitable native plants of local provenance into the landscape scheme, including species producing a variety of flowers and fruiting bodies to provide feeding resources for birds, invertebrates and bats, amongst other wildlife;
 - Increasing the woodland cover on Site with native tree planting to enhance and expand the local habitats;
 - The sowing of a wildflower seed mix in suitable areas of newly created green spaces, for the benefit of multiple species including invertebrates, bats and Hedgehogs;
 - Bird boxes and bat boxes affixed to suitable retained trees and integrated in the new buildings; and,
 - Creation of waterbodies, log piles and artificial hibernaculum to offer aquatic, foraging and over-wintering features for amphibians, reptiles and invertebrates.

Conclusions

- 4.5 Overall, the habitats on Site are of low botanical value; however, these habitats could offer resources for protected or valued species. Therefore, further surveys are recommended to inform any measures that may be required to ensure legislative and policy compliance, and to inform proposals for biodiversity net gain.

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Maps

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Map 3D	Relevant Species Records (Invertebrates)
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MAP 1 Site Location & Nature Conservation Designations

KEY

- Site location
- 2km linear distance from site location
- 5km linear distance from site location
- Ancient & Semi-Natural Woodland
- Ancient Replanted Woodland
- Statutory Sites
- Special Protection Areas
- Sites of Special Scientific Interest (SSSI)
- Local Nature Reserves (LNR)

SCALE: 1:40,000 at A3

0 500 1,000 1,500 2,000 Metres



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MAP 2 Habitats and Features

KEY

- ① Survey area
- Scattered broadleaved trees
- Scattered coniferous trees
- Target notes
- +++++ Fence
- Wall
- Scrub - dense/continuous
- Amenity Grassland
- Mixed broadleaved & coniferous tree line
- Ephemeral/short perennial
- Bare ground
- Hardstanding
- Mosaic of ephemeral/short perennial & bare ground
- Buildings**
- Moderate bat roosting potential
- Low bat roosting potential
- Building not assessed

SCALE: 1:1,850 at A3

0 20 40 60 80 100 Metres



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MAP 3a Protected and Notable Species, Birds

KEY

- Site location
- 2km linear distance from site location
- Common Gull
- Corn Bunting
- Cuckoo
- Dunnock
- Green Woodpecker
- Herring Gull
- House Martin
- House Sparrow
- Kestrel
- Linnet
- Meadow Pipit
- Mistle Thrush
- Redstart
- Reed Bunting
- Song Thrush
- Starling
- Stock Dove
- Swallow
- Tawny Owl
- Whitethroat

Only records recorded at a resolution of 10m or 100m are displayed

SCALE: 1:20,000 at A3

0 250 500 750 1,000 Metres



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MAP 3b Bat Roost Locations and Bat Records

KEY

- Site location
- ▤ 2km linear distance from site location
- ▨ 5km linear distance from site location
- Alcatraz Bat
- Bechstein's Bat
- Brandt's bat
- Brown Long-eared bat
- Common Pipistrelle
- Daubenton's bat
- Greater Horseshoe Bat
- Lesser Noctule
- Long-eared sp.
- Myotis Bat
- Nathusius's Pipistrelle
- Natterer's Bat
- Noctule Bat
- Nyctalus Bat species
- Pipistrelle sp.
- Serotine
- Soprano Pipistrelle (55 kHz)
- Western Barbastelle
- Whiskered Bat
- Whiskered/Brandt's
- Record accurate to 1km grid square
- Record accurate to 2km grid square
- ▤ 1km grid
- ▨ 2km grid

SCALE: 1:40,000 at A3

0 250 500 750 1,000 Metres



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Roosts

- ▤ Bat
- ▤ Brown Long-eared Bat
- ▤ Common Pipistrelle
- ▤ Greater Horseshoe Bat
- ▤ Long-eared sp.
- ▤ Pipistrelle sp.
- ▤ Serotine
- ▤ Soprano Pipistrelle (55 kHz)
- ▤ Whiskered/Brandt's

Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



MAP 3c Protected and Notable Species, Herptiles and Mammals & Plants

KEY

- Site location
- 2km linear distance from site location

Amphibians & Reptiles

- Common frog
- Common toad
- Common lizard
- Grass snake
- Great crested newt
- Palmate newt
- Slow-worm
- Smooth newt

Mammals

- European Rabbit
- Brown Hare
- European Water Vole
- Harvest Mouse
- West European Hedgehog
- Record accurate to 1km grid square

1km grid

SCALE: 1:20,000 at A3

0 250 500 750 1,000 Metres



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MAP 3d Protected and Notable Species,
Invertebrates and Other

KEY

- Site location
- 2km linear distance from site location
- Invertebrates**
- Alder Signal
 - Breckland Plume
 - Brown Hairstreak
 - Diamond-spot Sable
 - Dotted Chestnut
 - Dusky-lemon Sallow
 - Festoon
 - L-album Wainscot
 - Large Tortoiseshell
 - Long-legged Tabby
 - Marsh Grey
 - Orange Footman
 - Small Heath
 - Spindle Knot-horn
 - Stag Beetle
 - Waste Grass-veneer
 - White-letter Hairstreak
 - Yarrow Pug
- Others**
- European Eel
 - Plaice
 - Record accurate to 1km grid square
 - 1km grid

SCALE: 1:20,000 at A3

0 250 500 750 1,000 Metres

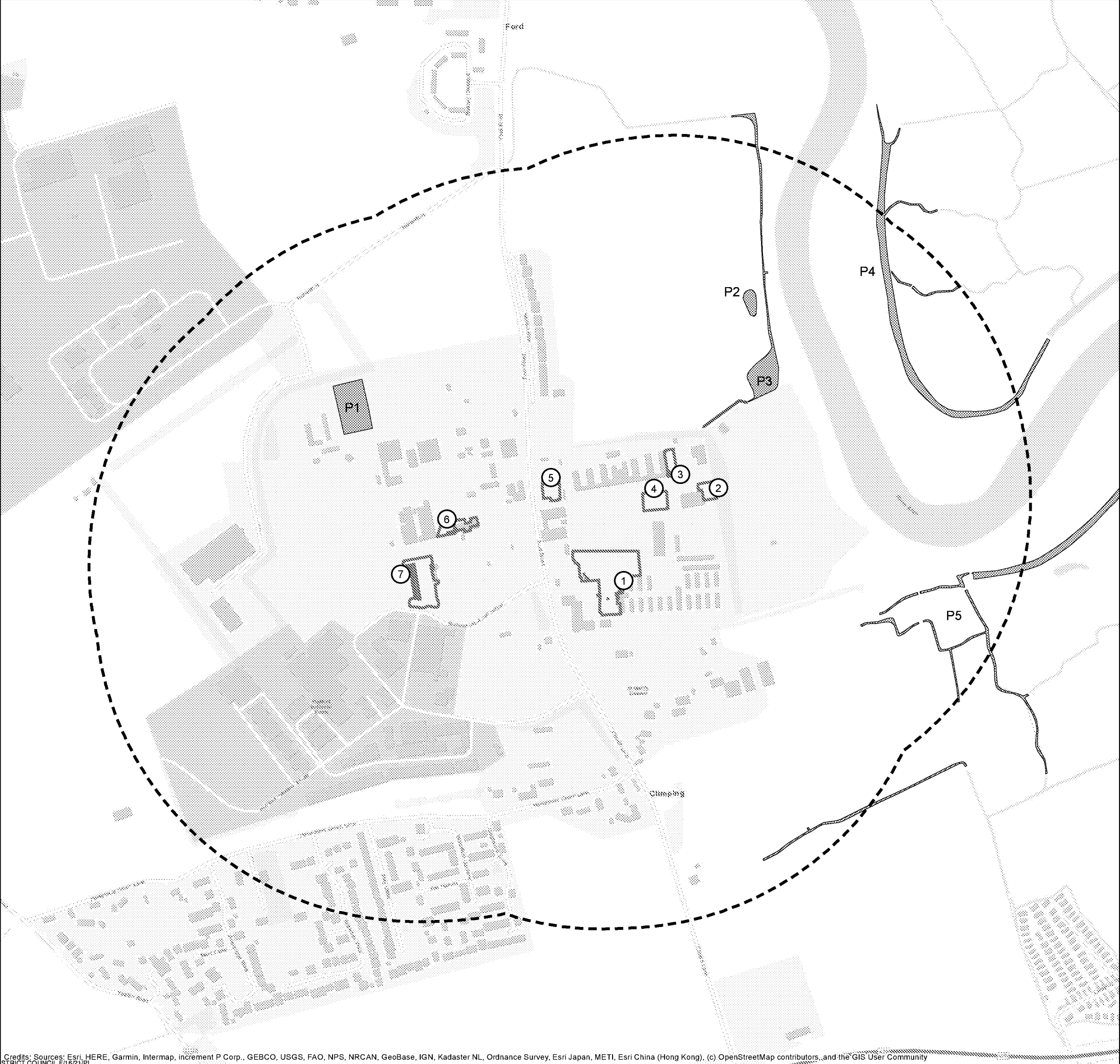


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MAP 4 Water Body Map

- KEY
-  Survey areas
 -  500m linear distance from survey areas
 -  Survey area reference

SCALE: 1:6,000 at A3

0 50 100 150 200 Metres



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Appendix 1

Relevant Nature Conservation Legislation and Policy

KEY WILDLIFE LEGISLATION

Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) (known as the “Habitats Regulations”) transpose the European Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the “Habitats Directive”) into UK legislation.

The Habitats Regulations were amended by the Conservation of Habitats and Species and Planning (Various Amendments) (England and Wales) Regulations 2018 to bring them into line with the latest European case law. As a result, the application of Regulation 63 now extends to planning tools such as Neighbourhood Development Orders and Local Development Orders.

The Habitats Regulations provide for the designation of both Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) in the UK, which form part of the Natura 2000 network of protected areas across Europe. The Regulations also prohibit certain actions relating to European Protected Species, which include *inter alia* Hazel Dormouse *Muscardinus avellanarius*, Great Crested Newt *Triturus cristatus*, European Otter *Lutra lutra* and all native species of bat.

Further information on SPAs, SACs and European Protected Species is provided in the relevant sub-sections of this Appendix.

Wildlife and Countryside Act 1981 (as amended)

The Wildlife and Countryside Act 1981 is the principal mechanism for the legislative protection of wildlife in Great Britain. Various amendments have occurred since the original enactment. Certain species of bird, animal and plant (including all of the European Protected Species listed above) are afforded protection under Schedules 1, 5 and 8 of the Act. Reference is made to the various Schedules and Parts of this Act (**Table A2.1**) in the section of this Appendix dealing with Legally Protected Species. The Act also contains measures for the protection of the countryside, National Parks, Sites of Special Scientific Interest (SSSIs) and public rights of way as well as preventing the establishment of invasive non-native species that may be detrimental to native wildlife.

Table A2.1: Relevant schedules of the Wildlife and Countryside Act 1981 (as amended).

Schedule	Protected Species
Schedule 1 Part 1	Protects listed birds through special penalties at all times
Schedule 1 Part 2	Protects listed birds through special penalties during the close season
Schedule 5 Section 9.1 (killing/injuring)	Protects listed animals from intentional killing or injuring
Schedule 5 Section 9.1 (taking)	Protects listed animals from taking
Schedule 5	Protects listed animals from being possessed or controlled (live or dead)

Schedule	Protected Species
Section 9.2	
Schedule 5 Section 9.4a	Protects listed animals from intentional damage or destruction to any structure or place used for shelter or protection
Schedule 5 Section 9.4b	Protects listed animals from intentional disturbance while occupying a structure or place used for shelter or protection
Schedule 5 Section 9.5a	Protects listed animals from being sold, offered for sale or being held or transported for sale either live or dead, whole or part
Schedule 5 Section 9.5b	Protects listed animals from being published or advertised as being for sale
Schedule 8	Protects listed plants from: intentional picking, uprooting or destruction (Section 13 1a); selling, offering for sale, possessing or transporting for the purpose of sale (live or dead, part or derivative) (Section 13 2a); advertising (any of these) for buying or selling (Section 13 2b).
Schedule 9	Prohibits the release of species listed in the Schedule into the wild.
Schedule 9a	Allows environmental authorities to issue species control orders to landowners, obliging them to control/eradicate invasive and/or non-native species.

Further information on legally protected species, designated wildlife sites and invasive non-native species is provided in the relevant sub-sections of this Appendix.

Countryside and Rights of Way Act 2000 (as amended)

Many of the provisions of the Countryside and Rights of Way (CROW) Act 2000 (as amended) have been incorporated as amendments into the Wildlife and Countryside Act (1981) and some provisions have now been superseded by later legislation such as The Natural Environment and Rural Communities (NERC) Act 2006 (as amended).

The most relevant changes provided by the CROW Act include the added protection given to SSSIs and other important sites for nature conservation. Importantly, under the Act it became a criminal offence to "recklessly disturb" Schedule 1 nesting birds and species protected under Schedule 5 of the Wildlife and Countryside Act. It also enabled heavier penalties on conviction of wildlife offences.

The Natural Environment and Rural Communities Act 2006 (as amended)

The NERC Act 2006 (as amended) was intended to raise the profile of biodiversity amongst all public authorities (including local authorities, and statutory undertakers) and to make biodiversity an integral part of policy and decision-making processes. The NERC Act also improved wildlife protection by amending the Wildlife and Countryside Act 1981.

Section 40 (S40) of the Act places a 'Biodiversity Duty' on all public bodies to have regard to the conservation of biodiversity when carrying out their normal functions. This includes giving consideration to the restoration and enhancement of species and habitats.

Section 41 (S41) 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 in England. This was published in 2007 and is commonly referred to as the "S41 list". Public authorities have a responsibility to give specific consideration to the S41 list when exercising their normal functions. For planning authorities, consideration for Habitats and Species of Principal Importance will be exercised through the planning and development control processes. Further information on Habitats and Species of Principal Importance is provided in the relevant sub-sections of this Appendix.

The Water Environment (Water Framework Directive) Regulations 2017

Currently, the overriding legislation relating to freshwater is the EU Water Framework Directive (WFD), which was enacted into law in England and Wales through the Water Environment Regulations in 2003, with a subsequent revision in 2017. The Directive sets out objectives to deliver a better water environment based upon achieving a 'good status' for freshwater bodies. The new concept of 'good status' is a more rigorous measure of environmental quality than previous measures, which now takes into account not just the chemical status but also the ecological health and the extent of artificial physical modification to rivers.

The WFD is based upon the concept of protecting water through the management of river basin districts (RBDs) and requires the implementation of River Basin Management Plans (RBMPs). Regulation 33 of the WFD requires local authorities to 'have regard' of the RBMP when making planning decisions, for example through the granting of planning permission with appropriate planning conditions and/or obligations. These could require measures to be implemented (e.g. Sustainable Drainage Systems (SuDS), grey water recycling etc.) or funds to be provided for habitat enhancement schemes.

The WFD also affects planning policy through the implementation of Programmes of Measures for each river basin district. This involves bringing together funding from various sources and co-ordination of the activities of organisations with an interest in the use of land and water, including developers.

SITES DESIGNATED FOR THE CONSERVATION OF NATURE

There is a hierarchy of nature conservation sites which is based on the level of statutory (legal) protection and the administrative level of importance. Other features of nature conservation interest outside designated sites may also be a material consideration in the determination of planning applications.

Statutory Sites: International

Ramsar Sites, Special Areas of Conservation (SAC) and Special Protection Areas (SPA)

The Conservation of Habitats and Species Regulations 2017 (as amended) provide the primary legal basis for the protection of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) in Great Britain.

SACs are sites which support internationally important habitats and/or species listed as being of Community Importance in the Annexes of the European Habitats Directive 92/43/EEC. SPAs are sites which support internationally important numbers of bird species listed as being of Community

Importance in the Annexes of the European Birds Directive 2009/147/EC. Together, SACs and SPAs make up the Natura 2000 network of Sites of Community Importance throughout Europe. They are often referred to as “European sites”.

Ramsar sites are wetlands of international importance and are, as a matter of national planning policy, subject to the same strict protection as SACs and SPAs. The majority of terrestrial Ramsar sites in England are also notified as SPAs and/or Sites of Special Scientific Interest (SSSIs).

Any plan or project considered likely to affect a SAC, SPA or Ramsar site must be subject to a Habitats Regulations Assessment (HRA), as set out under Regulation 63 (and Regulation 105 in respect of Land Use Plans) of the Habitats Regulations 2017 (as amended).

The local authority (or other ‘competent authority’) carries out the HRA, but the onus is on the developer to provide the necessary information to inform this process, usually in the form of a report.

Under the Habitats Regulations 2017 (as amended), the competent authority must determine in the first instance whether a proposed development is likely to have a significant effect on the European or Ramsar site, either alone or in combination with other plans and projects. This stage of the HRA process is known as ‘screening’.

If a likely significant effect cannot be precluded (screened out) on the basis of objective information, the competent authority must undertake an ‘Appropriate Assessment’ to fully assess these implications against the site’s conservation objectives. A precautionary approach must be taken with respect to determining whether or not there would be a significant effect, and the appropriate nature conservation body (in most cases Natural England) should be consulted. Except in certain exceptional circumstances prescribed by the Regulations where there are imperative reasons of overriding public interest for allowing a development to proceed, the competent authority may not undertake or authorise the plan or project until they have established (based on the conclusions of the Appropriate Assessment) that the activity will not adversely affect the integrity of the European or Ramsar site. This should be the case where no reasonable scientific doubt remains as to the absence of such effects.

Statutory Sites: National

Nationally important sites include SSSIs and National Nature Reserves (NNRs). A development proposal that is likely to affect a nationally important site will be subject to special scrutiny by the local planning authority and Natural England. Certain operations may be permitted. Any potentially damaging operations that could have an adverse effect directly or indirectly on the special interest of the site will not be permitted unless the reasons for the development clearly outweigh the nature conservation and/or geological value of the site itself and the national policy to safeguard such sites, as set out in Section 15 of the National Planning Policy Framework (NPPF).

Sites of Special Scientific Interest

The Wildlife and Countryside Act 1981 (as amended) and the CROW Act 2000 (as amended) provide the primary legal basis for the protection of SSSIs. These sites have been designated to capture the best examples of England’s flora, fauna, geological or physiographical diversity.

National Nature Reserves

NNRs are declared under the National Parks and Access to the Countryside Act 1949 and the Wildlife and Countryside Act 1981, as amended by the Environmental Protection Act 1990. They are managed

to conserve their habitats or to provide special opportunities for scientific study of the habitats communities and species represented within them. NNRs represent the very best parts of England's SSSIs. The majority of NNRs also have European nature conservation designations.

Statutory Sites: Regional/Local

Local Nature Reserves

Local Nature Reserves (LNRs) are declared by local authorities under the National Parks and Access to the Countryside Act 1949 as living green spaces in towns, cities, villages and countryside. They provide opportunities for research and education, or for simply enjoying and having contact with nature. LNRs are usually protected from development through local planning documents which may be supplemented by local by-laws.

Non-statutory Sites

Local Wildlife Sites

Local planning authorities may designate non-statutory sites for their nature conservation value based on important, distinctive and threatened habitats and species within a national, regional and local context. These sites are not legally protected but are given some protection through the planning system. These sites may be declared as 'County Wildlife Sites', 'Sites of Importance for Nature Conservation' (SINCs), or 'Sites of Nature Conservation Importance' (SNCIs) in local and structure plans. Non-statutory sites are a material consideration when planning applications are being determined. The precise amount of weight to be attached, however, will take into account the position of the site in the hierarchy of sites as set out above. Further information is typically provided in local level planning policy.

Nature Conservation in Areas Outside Designated Sites

Various other features exist outside designated sites that are important for the conservation of nature and which are a material consideration in the planning system.

Habitats of Principal Importance in England

Fifty-six habitat types have been identified as Habitats of Principal Importance for the conservation of biodiversity in England under Section 41 (S41) of the NERC Act 2006 (as amended). Although these habitats are not legally protected, the NPPF, Government Circular 06/05, good practice guidance and the NERC Act place a clear responsibility on planning authorities to further the conservation of these habitats. They can be a material consideration in planning decisions, and so developers are advised to take reasonable measures to avoid or mitigate impacts to prevent their net loss and to enhance them where possible. Additional guidance to developers is typically provided in local level planning policy.

The S41 list also includes species as explained below under 'Species of Principal Importance in England'.

Network of Natural Habitats

Networks of natural habitats link sites of biodiversity importance and provide routes or stepping stones for the migration, dispersal and genetic exchange of species in the wider environment. Examples include

rivers with their banks, traditional field boundary systems (such as hedgerows), ponds and small woods. Local planning authorities are encouraged through the NPPF to maintain networks by avoiding or repairing the fragmentation and isolation of natural habitats through planning, policies and development control.

Hedgerows

Hedgerows can act as wildlife corridors that are essential for migration, dispersal and genetic exchange of wild species. Hedgerows that qualify as a Habitat of Principal Importance under S41 of the NERC Act 2006 (as amended) are a material consideration in the planning system.

Under the Hedgerow Regulations 1997, it is an offence to remove a hedgerow without submitting a notice to the Local Planning Authority and waiting for their decision. The Regulations are aimed at countryside hedges and do not apply to hedges around private dwellings or where planning permission has been granted for a project that includes hedge removal. Hedgerows that satisfy wildlife, archaeological, historical or landscape criteria qualify as 'important' under the Regulations. If a hedgerow is not important, the Local Planning Authority may not prevent its removal; however, Local Planning Authorities are required under the Regulations to protect and retain important hedgerows unless satisfied that the circumstances justify its removal.

Tree Preservation Orders

Tree Preservation Orders (TPOs) may be declared under the Town and Country Planning Act 1990 and the Town and Country Planning (Trees) Regulations 1999 to protect individual trees and woodlands from development and cutting. TPOs are designed to preserve amenity or landscape conservation. The importance of trees as wildlife habitat may be taken into account, but alone is not sufficient to warrant a TPO. For this reason, TPOs do not fit comfortably under the remit of nature conservation and are generally dealt with by an arboricultural consultant rather than an ecologist. Further guidance on TPOs in relation to development is available from the Department for Communities and Local Government.

Ancient Woodland and Veteran Trees

Ancient woodlands are defined as areas continuously wooded since at least 1600 AD. Even an ancient wood which has been replanted may still have remnants of ancient woodland wildlife and historical features and has potential to be restored. Ancient woodland is not a statutory designation and does not provide legal protection, but local authorities are advised under the NPPF and National Planning Practice Guidance (NPPG) not to grant planning permission for any development that would result in the loss or deterioration of ancient woodland, ancient trees or veteran trees unless there are 'wholly exceptional reasons' and 'a suitable compensation strategy in place'. Local Planning Authorities must take into account Natural England and the Forestry Commission's *Standing Advice for Ancient Woodland and Veteran Trees*, available on the www.gov.uk website.

Surface and Ground Waters

Surface waters (including flowing and standing water) and ground water can directly and indirectly impact upon the conservation of nature.

Guidance on pollution prevention is hosted on the Government's website and focuses on regulatory requirements. This covers topics including the prevention of pollution if you are a business, managing business and commercial waste, oil storage, working on or near water, and managing water on land.

Careful planning and the application of these guidelines can help reduce the risk of construction and maintenance work causing pollution to surface and ground waters. Some activities with the potential to impact watercourses or groundwater may require consent under the Water Resources Act 1991.

Water Resources Act (WRA) 1991

Under the WRA there is strict regulation of discharges (including sediment, chemicals, nutrients) to rivers, lakes, estuaries and groundwaters. It also aims to ensure that polluters cover the costs associated with pollution incidents.

SPECIES PROTECTION

Legally Protected Species

The species listed in the following subsections are protected by law in England. When preparing a planning application, it is essential to determine the presence or likely absence of legally protected species and the extent to which they may be affected by a proposed development. This can best be achieved by undertaking surveys early in the planning process. Avoidance and/or mitigation measures may be required to address any predicted impacts upon protected species and may necessitate a licence. The Government website offers standing advice from Natural England and DEFRA which can be applied to planning applications that affect protected species.

Bats

There are eighteen species of bat in the UK, seven of which are Species of Principal Importance in England. All bats and bat roosts are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Bats are also a European Protected Species protected under the Habitats Regulations 2017 (as amended). It is an offence to:

3. Intentionally or deliberately kill, injure or capture bats;
4. Intentionally, deliberately or recklessly disturb bats in such a way as to be likely to significantly affect the ability of any significant group of bats to survive, breed, or rear or nurture their young or the local distribution of or abundance of a species of bat;
5. Intentionally, or recklessly damage, destroy or obstruct any place used for shelter or protection (i.e. bat roosts) or intentionally or recklessly disturb a bat whilst it is occupying such a place;
6. Damage or destroy a breeding site or resting place of a bat; and
7. Possess, sell or transport a bat, or anything derived from it.

Development proposals affecting bats or their roosts require a European Protected Species mitigation licence from Natural England.

Great Crested Newt

The Great Crested Newt *Triturus cristatus* is a Species of Principal Importance in England. It is legally protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and is afforded significant further protection as a European Protected Species under the Habitats Regulations 2017 (as amended). Collectively, this legislation makes it an offence to:

8. Intentionally or deliberately kill, injure or capture Great Crested Newts;
9. Intentionally, deliberately or recklessly disturb Great Crested Newts in such a way as to be likely to significantly affect the ability of any significant group of Newts to survive, breed, or rear or nurture their young or the local distribution of or abundance the species;
10. Intentionally or recklessly damage, destroy or obstruct any place used by Great Crested Newts for shelter or protection, or intentionally or recklessly disturb a Great Crested Newt whilst it is occupying such a place;
11. Damage or destroy a breeding site or resting place of a Great Crested Newt; and
12. Possess, sell or transport a Great Crested Newt, or anything derived from it.

Development proposals affecting the Great Crested Newt require a European Protected Species mitigation licence from Natural England.

Intentional or reckless behaviour leading to an offence being committed as detailed above may result in maximum penalties of:

- Up to £5,000 fine per offence committed;
- A custodial sentence of up to six months instead of, or in addition to, a fine; and/or
- Items of equipment involved in committing the offence may be seized and detained.

In addition to the above penalties, it is likely that any European Protected Species mitigation licence obtained for a site will be revoked whilst any wildlife offence is investigated. This will lead to immediate temporary and, depending on investigation outcomes, possible permanent restrictions on-site works, as well as associated cost.

Hazel Dormouse

The Hazel Dormouse *Muscardinus avellanarius* is a Species of Principal Importance in England. It is legally protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and is afforded significant further protection as a European Protected Species under the Habitats Regulations 2017 (as amended). Collectively, this legislation makes it an offence to:

- Intentionally or deliberately kill, injure or capture Hazel Dormice;
- Intentionally, deliberately or recklessly disturb Hazel Dormice in such a way as to be likely to significantly affect the ability of any significant group of Hazel Dormice to survive, breed, or rear or nurture their young or the local distribution of or abundance of the species;
- Intentionally or recklessly damage, destroy or obstruct access to places used by Hazel Dormice for shelter or protection (whether occupied or not) or intentionally or recklessly disturb a Hazel Dormouse whilst it is occupying such a place;
- Damage or destroy a breeding site or resting place of a Hazel Dormouse;
- Possess or transport a Hazel Dormouse (or any part thereof) unless under licence; and
- Sell or exchange Hazel Dormice.

Development proposals affecting the Hazel Dormouse require a European Protected Species mitigation licence from Natural England.

Reptiles

All four of the widespread British species of reptile, namely the Common Lizard *Zootoca vivipara*, Slow-Worm *Anguis fragilis*, Grass Snake *Natrix helvetica* (previously *Natrix natrix*) and Adder *Vipera berus*, are Species of Principal Importance in England. They are protected under Schedule 5 (Sections 9.1, 9.5a, 9.5b) of the Wildlife and Countryside Act 1981 (as amended) from intentional killing, injury and trade. The habitat of the four widespread reptiles is not legally protected; however, the replacement of habitat lost through development may be required through the planning system. Mitigation for these species is not subject to licensing by Natural England but should nonetheless be planned to minimise disturbance and potential project delays. The Smooth Snake *Coronella austriaca* and the Sand Lizard *Lacerta agilis* are the rarest reptile species in Britain. In addition to the protection that is afforded to the widespread species of reptile listed above, these species are protected further under Schedule 5 (Sections 9.4b and 9.4c) of the Wildlife and Countryside Act 1981 (as amended). They are also European Protected Species protected under the Habitats Regulations 2017 (as amended). This legislation makes it an offence to:

- Intentionally or deliberately kill, injure or capture Sand Lizards or Smooth Snakes;
- Intentionally, deliberately or recklessly disturb Sand Lizards or Smooth Snakes in such a way as to be likely to significantly affect the ability of any significant group of Sand Lizards or Smooth Snakes to survive, breed, or rear or nurture their young or the local distribution or abundance of either species;
- Intentionally or recklessly damage, destroy or obstruct any place used by Sand Lizards or Smooth Snakes for shelter or protection, or intentionally or recklessly disturb a Sand Lizard or Smooth Snake whilst it is occupying such a place;
- Damage or destroy a breeding site or resting place of a Sand Lizard or Smooth Snake;
- Keep, sell, or exchange Sand Lizards or Smooth Snakes or their eggs; and
- Deliberately take or destroy their eggs.

Development proposals affecting Smooth Snake or Sand Lizard require a European Protected Species mitigation licence from Natural England.

Birds

Forty-nine species of bird are listed as Species of Principal Importance in England. All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended), making it an offence, with certain exceptions (e.g. game birds), to intentionally kill, injure or take any wild bird and to take, damage or destroy their nests or eggs.

Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) affords extra protection for certain species and applies harsher penalties for offences. Any intentional or reckless disturbance of a Schedule 1 bird, whilst it is nesting or rearing dependent young, constitutes an offence.

Regulation 10 of the Conservation of Habitats and Species Regulations 2017 (as amended) requires appropriate authorities and conservation bodies, in the exercise of their functions, to take such steps that they consider appropriate in order to secure “the preservation, maintenance and re-establishment

of a sufficient diversity and area of habitat for wild birds in the United Kingdom, including by means of the upkeep, management and creation of such habitat (...)".

European Badger

The Protection of Badgers Act 1992 (as amended) offers considerable protection to both Badgers *Meles meles* and Badger setts. This legislation was enacted to protect the European Badger against baiting and not as a means of species recovery as it is common in England. It is an offence to cruelly treat, kill or take Badgers, but it is also illegal to intentionally or recklessly damage or disturb a Badger sett while it indicates signs of current use by a Badger.

The Government website contains information to help developers and their proponents avoid sett disturbance and to identify setts that are in current use. It is important to maintain adequate foraging territory in development proposals affecting Badgers as the destruction or severance of large areas of foraging territory could also be taken to include habitat loss. Licences to disturb Badgers and their setts in respect of development may be issued by Natural England provided provisions are made to minimise disturbance.

Wild Mammals

All wild mammals are protected against cruelty under the Wild Mammals (Protection) Act 1996, which makes it an offence to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

Licences for Development

Licences are required to permit activities prohibited under wildlife legislation, namely the disturbance or capture of protected species or damage to their habitats. Natural England is the licensing authority in England. Licences are only issued for certain purposes, which are set out in the legislation, and only where there is a valid justification. The licences most relevant to development scenarios are discussed below.

European Protected Species Mitigation Licences

A European Protected Species mitigation licence is required from Natural England to undertake any development that is reasonably likely to result in an offence in respect of a European Protected Species protected under Schedule 2 of the Habitats Regulations 2017 (as amended); including inter alia all species of bats, Hazel Dormouse, Great Crested Newt and European Otter. Natural England must be satisfied that the following three tests are satisfied before it will issue a licence covering a European Protected Species:

- 1) The proposal is necessary to preserve public health or public safety, or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;
- 2) There is no satisfactory alternative; and
- 3) The proposal will have no detrimental effect to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

Badger Licences

Licences to disturb Badgers and their setts in respect of development may be issued by Natural England, provided provisions are made to minimise disturbance.

Species of Principal Importance in England

Nine hundred and forty-three species have been identified as being of Principal Importance for the conservation of biodiversity in England under S41 of the NERC Act 2006 (as amended). The S41 list includes species found in England which have been identified as requiring action under the now superseded UK Biodiversity Action Plan 2007 (plus the Hen Harrier *Circus cyaneus*). While many of these species may not be legally protected (some are protected under the legislation described above), there is a clear responsibility on local planning authorities to further their conservation. These species can be a material consideration in development control decisions and so developers are advised to take reasonable measures to avoid or mitigate impacts to prevent the net loss of these species, and to enhance their habitats where possible. Additional guidance to developers is typically provided in local level planning policies.

Invasive Non-native Species

There are a number of species not ordinarily resident in the UK, such as Japanese Knotweed *Fallopia japonica*. Those which pose a significant threat, if uncontrolled, to our ecology and economy are listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). For an offence to be committed, a species must be released or allowed to escape into the wild. For example, if a plant listed on Schedule 9 is not adequately controlled by a land owner, once they are aware that it is present, and the species is allowed to spread into adjoining areas, then this could constitute an offence.

Japanese Knotweed is also classed as 'controlled waste' under the Environment Protection Act 1990 (as amended) and if taken off site it must be disposed of safely at a licensed landfill site. Soil containing rhizome material should also be regarded as contaminated and treated accordingly.

Species Control Orders

A new Schedule 9A was inserted into the Wildlife and Countryside Act 1981 (as amended) by Sections 23 to 25 of the Infrastructure Act 2015. This gives environmental authorities (in England the Secretary of State, Environment Agency, Natural England and the Forestry Commission) the power to offer 'species control agreements' to landowners in respect of invasive and/or non-native species, such as Japanese Knotweed. If the landowner does not comply with a species control agreement, or refuses to enter into one, the environmental authority may issue a 'species control order', requiring the owner to eradicate or control the species, or to allow the environmental authority access to carry out these operations themselves.

If the owner does not comply with the species control order, the maximum penalty if convicted is a fine of up to £40,000 and/or imprisonment for up to 51 weeks. The environmental authority can also recover costs for carrying out the necessary work themselves.

PLANNING POLICY AND GUIDANCE

This section set out the main planning policy and government guidance that relates to the conservation of nature at all levels of government.

National Level

National Planning Policy Framework 2019

The National Planning Policy Framework (NPPF) 2019 sets out the Government's planning policies for England and how these should be applied in local-level policy and decision making. The NPPF has a clear "presumption in favour of sustainable development" (paragraph 11), with economic, social and environmental objectives. This presumption does not apply where a plan or project has failed the 'appropriate assessment' test under the Habitats Regulations (paragraph 177).

Section 15 of the NPPF provides guidance on conserving and enhancing the natural environment through the planning system, as summarised below.

Firstly, planning policies and decisions should contribute to and enhance the natural and local environment by applying the following key principles:

- Protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- Recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; and
- Preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability.

Section 15 also requires planning policies and decisions to limit the impact of artificial light pollution on nature conservation.

Secondly, when determining planning applications, local planning authorities should apply the following key principles:

- If significant harm resulting from a development cannot be avoided, adequately mitigated or (as a last resort) compensated for, then planning permission should be refused;
- Proposed development that is likely to have an adverse effect on a SSSI (either individually or in combination with other developments) should normally be refused;
- Planning permission should normally be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and aged or veteran trees, unless there are 'wholly exceptional reasons' and a suitable compensation strategy exists; and
- Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

In the case of SSSIs and irreplaceable habitats, exceptions may be made if it can be clearly demonstrated that the benefits of the development, in that location, clearly outweigh the costs in terms of loss or adverse impacts.

Section 15 specifies that listed or proposed Ramsar sites, potential European sites, and sites identified or required as compensatory measures for adverse effects on designated/listed or potential/proposed European and Ramsar sites should be given the same protection as designated European sites.

Section 15 includes the following text on air quality:

- Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas;
- Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications; and
- Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan.

The NPPF also sets out principles for plan-making, including the allocation of land with the least environmental or amenity value, and taking a strategic approach to maintaining and enhancing networks of habitats and green infrastructure by identifying, mapping and safeguarding components of local wildlife-rich habitats, wider ecological networks, wildlife corridors and stepping stones, and those areas identified by national and local partnerships for habitat management, enhancement, restoration or creation.

Government Circular 06/05: Biodiversity and Geological Conservation

The Government produced Circular 06/05 to provide guidance on the application of the law to the conservation of nature. Although the document is in the process of being updated, Paragraphs 98 and 99 remain relevant as they set out the following principles and obligations:

- The presence of protected species is a material consideration when determining a development proposal;
- Local authorities should consult with Natural England before granting permission, and consider imposing planning conditions or obligations to secure the long-term protection of the species;
- The presence of protected species, and the extent to which they may be affected by the proposed development, must be established before permission is granted;
- Given the delay and cost that may be involved, developers should not be required to undertake surveys for protected species unless there is a reasonable likelihood of the species being present and affected by the development.

MHCLG Planning Practice Guidance

Revised and updated Planning Practice Guidance (PPG) was launched by the Department for Communities and Local Government (now the Ministry of Housing, Communities and Local Government, MHCLG) as a web-based tool in March 2014 to accompany the NPPF. The webpages are set out in a Q&A format. The PPG consolidates and supersedes existing guidance on a range of planning-related topics, clarifies some of the statements made in the NPPF, and provides links to relevant legislation and other sources of advice.

The Guidance outlines a number of important principles in relation to nature conservation and biodiversity, including the need to integrate biodiversity into all stages of the planning process and to consider opportunities to enhance biodiversity and contribute to the Government's commitments and targets set out in *Biodiversity 2020: A strategy for England's wildlife and ecosystem services*.

The guidance also requires that "an ecological survey will be necessary in advance of a planning application if the type and location of development are such that the impact on biodiversity may be significant and existing information is lacking or inadequate", and recommends that "local planning authorities should only require ecological surveys where clearly justified, for example if they consider there is a reasonable likelihood of a protected species being present and affected by development."

Other Guidance

In addition to the Planning Practice Guidance, various other forms of guidance and standards are available in relation to biodiversity and the development process. Of particular note is *British Standard BS42020:2013 Biodiversity – Code of practice for planning and development*, published in August 2013, which replaces *Planning to Halt the Loss of Biodiversity (PAS 2010): Biodiversity conservation standards for planning in the United Kingdom*.

This document is designed to complement the NPPF and is aimed at organisations concerned with ecological issues throughout the planning process, including local authorities, developers, planners and ecological consultants. It sets out step-by-step recommendations on how to incorporate biodiversity considerations at all stages of the planning process, with a focus on the provision of consistent, high quality and appropriate ecological information, effective decision making, and high standards of professional conduct and competence.

Regional Level

Regional plans (such as the South East Plan Regional Spatial Strategy) have been revoked, but some specific policies have been saved. The only policy saved from the South East Plan is Policy NRM6, which relates to the Thames Basin Heaths Special Protection Area (TBH SPA).

Local Level

The Site is within the administrative area of Arun Council. The documents of relevance include the Adopted Arun Local Plan 2018. Relevant Policies:

- Policy C SP1- Countryside
- Policy GI SP1 - Green Infrastructure and development
- Policy HER DM3 - Conservation Areas
- Policy ENV SP1- Natural Environment

- Policy ENV DM3 - Biodiversity Opportunity Areas
- Policy ENV DM4 - Protection of trees
- Policy ENV DM5 - Development and biodiversity

BIODIVERSITY PLANS AND STRATEGIES

The NERC Act 2006 (as amended) places a duty on local authorities to have due regard to biodiversity when exercising their normal functions, and the NPPF requires planning policies to “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” (paragraph 174). These targets are set out in a range of biodiversity plans and strategies from the international through to the district level.

An overview of the key biodiversity plans and strategies in the UK, and their implications for development, are set out below.

National Level

The *UK Biodiversity Action Plan 2007* (UK BAP) has been superseded by the *UK Post-2010 Biodiversity Framework* and individual national biodiversity strategies. The UK Framework sets out the overarching vision, strategic goals and priority activities for the UK’s work towards international biodiversity targets (known as the ‘Aichi Targets’), as agreed by 192 parties at the UN Convention on Biological Diversity in 2010.

In England, *Biodiversity 2020: A strategy for England’s wildlife and ecosystem services* is the national biodiversity strategy, which has the stated mission “(...) to halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people.” In order to focus activity and assess performance in achieving this mission, Biodiversity 2020 sets out objectives relating to terrestrial and marine habitats and ecosystems, species and people.

Local Level

Biodiversity Action Plan

While BAPs at the national level have now been superseded by *the UK Post-2010 Biodiversity Framework* and *Biodiversity 2020: A strategy for England’s wildlife and ecosystem services*, many county and district level BAPs still exist.

Sussex Biodiversity Action Plan has a local BAP which is relevant to the Site that consists of targets for maintaining, restoring and creating priority habitats.

Delivering Net Gain

Opportunities should also be sought to achieve a net gain (i.e. enhancement) of biodiversity. Support for biodiversity enhancement is provided in the Public Authority ‘Biodiversity Duty’ under the NERC Act 2006 (as amended) and in the key principles of the NPPF, and increasingly in local level planning policy.

Enhancement projects may not just benefit biodiversity. There are many eco-system functional benefits that can be gained from strategically planned green infrastructure.

Planning conditions and obligations are increasingly being used to mandate biodiversity enhancement on or off a development site, either through design or financial support.

Appendix 2

Detailed Survey Methodologies

Ecological Appraisal

Desk Study Methodology

A desk study was carried out to gather and refer to existing biodiversity and contextual information with respect to the Zone of Influence. This involved interrogation of internet resources, including the Multi-agency Geographic Information for the Countryside (MAGIC), aerial photos, current Ordnance Survey maps and historical maps. Reference was also made to local planning policies, strategies and initiatives relating to biodiversity.

A biological records request was made in 2020 to the Sussex Biodiversity Record Centre (SxBRC) for any existing biological records in their database. The local records search and other desktop research was over a 2km radius for nationally and locally important features and a 5km radius for European Protected Species and sites of European significance.

Fieldwork Methodology

The ecological appraisal was completed by Katrina Diedericks on the 19th August 2020. The Site and immediately surrounding land were walked where accessible, recording habitats and features of potential importance to wildlife and any evidence of, or potential for, protected or priority species or habitats, in accordance with the methods described below.

Land Use, Habitat Types, Vegetation Communities and Flora

Within the Site the land use, habitat types and landscape features (such as hedgerows) were described. For each main habitat type the dominant vegetation communities were recorded, along with any priority or indicator plant species, (including Japanese Knotweed where present). A preliminary evaluation of the structure, quality and likely management of each habitat or feature was also carried out.

The survey method used to record this information was based on JNCC Extended Phase 1 habitat mapping.

Badgers

Consideration was given to the presence of habitat potentially suitable for supporting Badgers, including woodland and grassland. Potential evidence of the presence of Badgers was looked out for and noted, including earthworks that might be Badger setts, and signs such as dung pits, mammal pathways through ground vegetation and under fences, and hairs on fences.

Bats

Bats use buildings and trees for roosting and breeding and, where present, a preliminary assessment of the potential for these features to support bats was undertaken during the survey in accordance with categories set out within the Bat Conservation Trust's Bat Surveys Good Practice Guidelines (2016). Potential may include gaps beneath roof or hanging tiles, in soffits, or beneath the end of ridge tiles, but

also under the edge of felt on flat roofs. In trees potential roosting features include woodpecker holes, splits in branches and peeling bark.

A preliminary evaluation was also undertaken of potential bat foraging habitat in the area, including woodland, pasture, hedges and watercourses.

Hazel Dormouse

The type and quality of habitat with the potential to be suitable for supporting Hazel Dormice, such as woodland and hedgerows, was considered during the survey. In particular the presence of Oak, Hazel and berry-bearing shrubs was noted, and the connectivity of habitat recorded.

Birds

Any birds seen whilst carrying out the survey were recorded, and the type and quality of habitats available for birds was considered, including vegetation suitable for nesting, and habitat with the potential to support valued species, including breeding and wintering birds.

Amphibians

Consideration was given to the presence of habitat potentially suitable for supporting amphibians, including waterbodies (ponds, ditches), woodland, scrub and rough grassland, and features such as log piles that might provide hibernation areas.

Reptiles

The presence and quality of habitat considered potentially suitable for supporting reptiles was recorded. This included areas providing basking and foraging opportunities, hibernation and breeding sites, such as rough grassland and scrub, banks, burrows, rubble piles, compost heaps, hedgebanks and waterbodies.

Invertebrates

Habitats and features likely to support noteworthy groups and species were noted, for example herb-rich grasslands, areas of bare ground and deadwood habitats.

Appendix 3

Details of Buildings with Bat Roosting Suitability

Ref.	Description	Potential roosting features	Suitability	Photographs
B1	Brick-built mid-twentieth century office building with tiles roof	Gaps under end of roof, lifted tiles	Moderate	
		Gaps under ridge		
		Gaps under lifted fascia boards		
B2	Brick-built mid-twentieth century office building with flat felt roof	Slightly lifted metal fascia.	Low	