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PRELIMINARY ECOLOGICAL APPRAISAL

At

1 Codrington Gardens
Gravesend
Kent
DA12 5DB

NGR: TQ 65590 71216

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UES reference: UES03609/01



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EXECUTIVE SUMMARY

United Environmental Services Ltd (UES) was commissioned by Future Visions (UK) Ltd to carry out a baseline ecological survey of a parcel of land at 1 Codrington Gardens, Gravesend, Kent. A desk study and preliminary ecological appraisal (PEA) survey were undertaken on 11th January 2022, including searches using the Multi Agency Geographic Information Centre (MAGIC).

The PEA provides an assessment of potential ecological impacts associated with the development of the land parcel. The development proposals involve the erection of 2-bedroom end-terrace house within the side garden of the existing end-terrace, and provision of off-street parking.

The proposed development site at 1 Codrington Gardens measures approximately 300m² in area and comprises a residential dwelling and an associated garden area, located on the south-eastern outskirts of Gravesend, Kent. The habitats within the development boundary include a single end-terrace dwelling and associated hardstanding car parking, small areas of introduced shrub, amenity grassland and a short section of species-poor non-native hedgerow.

The results of the survey combined with the results of the desk study have highlighted the requirement for further work in relation to the following habitats and species:

- **Designated sites** – The site lies approximately 3km south-west of the Thames Estuary and Marshes SPA (Special Protection Area) and Ramsar Sites. Given the potential for new residents of the proposed dwelling to adversely impact these sites through increased recreational pressure, Natural England have stipulated that all new residential developments within this impact risk zone must make a financial contribution to mitigate increased recreational disturbance on coastal European SPA and Ramsar Sites.

The developer has agreed to pay the required financial contribution to mitigate for any increased impacts the construction of a new dwelling would have upon the nearby Thames Estuary and Marshes SPA and Ramsar Sites.

- **Breeding birds** – any vegetation clearance works are to take place outside of the breeding bird season and should not be undertaken from March to August inclusive. If not possible and works need to take place during this period, a targeted nest survey is to be undertaken immediately prior to the works by a suitably qualified ecologist or an ecological clerk of works appointed to oversee the works.

The sections of the building that are due to be impacted by the proposals have no features suitable to support nesting birds. If the proposals change to involve impacts to any section of the roof of the existing building, these works should also be undertaken outside of the nesting bird season and should not be undertaken from March to August inclusive.

- **Hedgerows** – to be retained where possible, or replaced as part of a detailed landscaping scheme. Generic issues relating to root protection areas.

Mitigation measures, as detailed in section 4, should be adhered to, which may in some cases negate the need for further survey work.



The development also presents an opportunity to improve the habitats on site for wildlife, such as bats and birds. The inclusion of nest boxes and bat boxes will provide suitable nesting and roosting features in the long term.

This report should be read with appendices 1 to 6, which include results of the desk study, GIS phase 1 habitat mapping, photographs of site and relevant statutory guidance.

Gravesend Borough Council

1 INTRODUCTION

1.1 Author, surveyors, qualifications and scope of study area

This report is written by Tom Kenwright BSc MSc, UES Senior Ecologist. Tom holds a level 4 Botanical Society for Britain and Ireland (BSBI) field identification skills certificate (FISC), which certifies him as competent to undertake botanical and habitat surveys up to National Vegetation Classification (NVC) level. Other surveyors present include:

- Noah Fulton BSc, UES Graduate Ecologist.

The report provides an assessment of the potential ecological impacts associated with the proposed development of a parcel of land at 1 Codrington Gardens, Gravesend, Kent.

The zone of influence considered within the scope of the survey includes all land within the red line boundary. Where relevant, other ecological resources, receptors and important habitats which are spatially separate from the site are considered.

1.2 Survey objectives

UES was commissioned in January 2022 to conduct a PEA of the proposed development site. This was completed in order to:

- Establish baseline conditions and determine the importance of ecological features present or potentially present within the survey area
- Identify key ecological constraints to the project
- Make recommendations for design options to avoid significant effects on important ecological resources at an early stage of development planning
- Identify potential requirement for further surveys for nationally or internationally protected species which may be present on site
- Identify potential requirement for mitigation or compensation, including measures that may be required based on further surveys

1.3 Proposed development

The development proposals involve the erection of 2-bedroom end-terrace house within the side garden of the existing end-terrace, and provision of off-street parking.

1.4 Structure of the report

This report is a baseline appraisal that forms the basis for further ecological surveys and Environmental Impact Assessments (EIA) if required. In the majority of cases the preliminary ecological assessment will not provide all the ecological data required by the Local Planning Authority to determine an application, especially in the event that protected habitat or species issues are present or likely.



This report should be read with appendices 1 to 6, which include results of the desk study, GIS phase 1 habitat mapping, photographs of site and relevant statutory guidance.

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2 METHODOLOGY

This PEA comprises a desk study and a field survey. The desk study is conducted in order to collate ecological information on species and / or habitats of interest that may be present. The field survey is conducted in order to assess the habitats and their importance, both on site and in the context of their wider surroundings.

2.1 Desk study

The following resources were used to inform the desk study:

- National – Using the UK government’s MAGIC website, statutorily protected sites were scoped to a distance of 10km from the application site.
- Local – UES has not been commissioned to undertake an environmental records search at this point.

2.2 Field survey

An ecological walkover survey was carried out on 11th January 2022 by Tom Kenwright and Noah Fulton. The purpose of the survey was to identify, record and map dominant habitat types within the development area and highlight any further species surveys that may be required based on the quality of those habitats. When conducting the surveys particular focus was concentrated on the following species and habitat features:

- | | |
|------------------|-------------------------|
| • Amphibians | • Hedgerows |
| • Reptiles | • Plant communities |
| • Badger | • Invasive species |
| • Bats | • Otter |
| • Hazel dormouse | • Water vole |
| • Birds | • White-clawed crayfish |
| • Trees | |

The habitats were assessed by using the phase 1 habitat survey technique, which is a system for environmental audit widely used within the environmental consultancy field. The survey was undertaken in accordance with the methodology in the ‘Handbook for phase 1 habitat survey - A technique for environmental audit’ (JNCC, 2010) as recommended by Natural England, and in the “Guidelines for Preliminary Ecological Appraisal” (CIEEM, 2017).

The survey area encompasses all of the land within the development footprint and the land to a distance of 30m outside it where accessible. In line with recognised guidelines, ponds were also scoped to a distance of 500m (250m radius from the survey area).

The phase 1 habitat survey methodology was extended to record any signs of habitats suitable to support protected / invasive species and any incidental observations of other noteworthy species.



2.3 Survey limitations

The survey was conducted in January when not all plants are readily identifiable. However sufficient vegetative identification was possible, allowing a robust assessment of habitats to be undertaken.

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3 RESULTS

3.1 Desk study

A desk study was conducted for the proposed development site and surrounding area. Statutorily protected sites were scoped to a distance of 10km. Further results of the desk study can be found at Appendix 1 – Desk study.

There is a single statutorily protected site within 2km of the proposed development site:

- Shorne and Ashenbank Woods SSSI¹
Located approximately 1.8km south-east of the proposed development site, the SSSI is designated as it supports a complex of ancient and plantation woodland. The site also supports an important and diverse invertebrate fauna, especially *Coleoptera* (beetles), *Hemiptera* (true bugs), and *Odonata* (dragonflies).

The proposed development site lies within a SSSI Impact Risk Zone (IRZ) within which Natural England suggest that new residential developments must make a financial contribution to mitigate increased recreational disturbance on coastal SPAs² and Ramsar Sites.

There are twenty-one statutorily protected sites (designated for ecological reasons) within 2 – 10km of the proposed development site:

- Baty's Marsh LNR³
- Chattended Woods and Lodge Hill SSSI
- Cobham Woods SSSI
- Darenth Wood SSSI
- Halling to Trottiscliffe Escarpment SSSI
- Hangman's Wood & Deneholes SSSI
- Holborough to Burham Marshes SSSI
- Grays Thurrock Chalk Pit SSSI
- Great Crabbles Woods SSSI
- Linford Wood LNR
- North Downs Woodlands SAC⁴
- Mucking Flats and Marshes SSSI
- Rectory Meadow LNR
- Rede Common LNR
- South Thames Estuary and Marshes SSSI
- Swanscombe Peninsula SSSI
- Thames Estuary and Marshes Ramsar Site
- Thames Estuary and Marshes SPA
- Tower Hill to Cockham Wood SSSI
- West Thurrock Lagoon and Marshes SSSI
- Wouldham to Detling Escarpment SSSI

3.2 Baseline conditions – Habitats

The results of the PEA are also shown on the accompanying map at Appendix 2 – Phase 1 habitat plan. Habitats are colour-coded in accordance with the phase 1 standard. A full botanical species list for each habitat is provided at Appendix 5.

The local area predominantly consists of residential and commercial urban areas interspersed with small residential gardens and larger areas of amenity grassland, such as playing fields. The following principle habitat types were characterised on site:

¹ SSSI – Site of Special Scientific Interest

² SPA – Special Protection Area

³ LNR – Local Nature Reserve

⁴ SAC – Special Area of Conservation

- J1.2 Amenity grassland
- J1.4 Introduced shrub
- J2.1.2 Intact, species-poor hedge
- J2.4 Fence
- J3.6 Buildings
- J4 Bare ground
- J5 Hardstanding

3.2.1 J1.2 Amenity grassland

A number of small amenity grassland lawns are present on site. These lawns have a short sward and are subject to regular mowing. The area of amenity grassland lawn within the northern section of the site has been subject to significant disturbance during works to install temporary fencing and to clear the garden, and now contains very little grass amongst bare ground. The sward is dominated by perennial ryegrass *Lolium perenne* and other grasses and forb species are predominantly limited to the margins or areas of disturbance caused by recent activity to install temporary fences on site.

3.2.2 J1.4 Introduced shrub

A small number of stands of introduced shrub are present on site, located within the front, rear and side gardens of the existing property.

3.2.3 J2.1.2 Intact, species-poor hedgerow

A short section of hedgerow demarcates part of the northern and western site boundary. The hedge is subject to regular management and measures approximately 1.5m in height and 0.75-1m in width. Except for single saplings of holly *Ilex aquifolium* and cherry laurel *Prunus laurocerasus*, the hedge is entirely composed of a non-native *Cotoneaster* species and grades into a stand of introduced shrubs. The exact species and variety of cotoneaster isn't known; however it isn't one of the five cotoneaster species listed as invasive under Schedule 9 of the Wildlife & Countryside Act 1981 (as amended). Ground flora at the base of the hedgerow is largely limited to ivy *Hedera helix*.

3.2.4 J2.4 Fence

Wooden post and panel and wooden post and concrete panel fences demarcate parts of the development and survey boundaries.

3.2.5 J3.6 Buildings

Two buildings are present on site, both of which will be retained as part of the development proposals. Building 1 is a two-storey end-terrace residential dwelling that will be retained but will have a new dwelling adjoined to its northern aspect. Due to the potential for the works to impact upon roosting bats within the building, if present, a bat scoping survey was undertaken concurrently with the PEA. A full description of Building 1 is provided in the bat scoping survey report (see report reference UES03609/02) and the buildings suitability to support roosting bats is detailed in section 3.3.4 below.

Building 2 is a single-storey shed / outbuilding that will be retained and completely unaffected by the development proposals. As such, this building was not subject to a detailed inspection as part of the bat scoping survey.

3.2.6 J4 Bare ground

An area of bare ground is present within the northern section of the site. This area has recently been disturbed and contained no vegetation at the time of the walkover survey.

3.2.7 J5 Hardstanding

Areas of mixed loose stones, concrete flagstones and continuous concrete are present on site and are used as pathways, a patio and parking areas.

3.3 Baseline conditions – Protected species or resources

As part of the PEA, specific observations of wildlife were also recorded. Wildlife observations focused on protected species, invasive species or species of conservation concern. Habitats with potential to support protected species were noted with a view to follow up surveys if required.

3.3.1 Amphibians

No evidence of any amphibians was observed on site during the walkover survey.

There are no mapped ponds within 500m of the proposed development site and hence there is no suitable amphibian breeding habitat within the vicinity of the site.

The terrestrial habitats within the development footprint are broadly unsuitable for amphibians as they are limited to small areas of amenity grassland and non-native shrubs and hedgerow. Additionally, the site is located within an urban area and is surrounded by roads, other residential dwellings and areas of intensively managed amenity grassland, isolating the site from more suitable amphibian habitat within the wider landscape.

Amphibians, including great crested newts *Triturus cristatus* (GCNs) are not considered to be present on site or within the immediate vicinity of the site.

3.3.2 Reptiles

No evidence of any reptile species was observed on site during the walkover survey.

The habitats on site are broadly unsuitable to support reptiles as they are limited to a residential dwelling and garden, lacking suitable breeding, foraging, and commuting opportunities. The site is situated within an urban area and is surrounded by roads, other residential dwellings and areas of intensively managed amenity grassland, isolating the site from more suitable reptile habitat within the wider landscape.



Reptiles are not considered to be present on site or within the immediate vicinity of the site.

3.3.3 Badger

No evidence of badger activity was observed on site during the survey.

The habitats on site are broadly unsuitable to support badgers as they are limited to a residential dwelling and garden, providing very limited sett building and foraging opportunities. The site is situated within an urban area and is surrounded by roads, other residential dwellings and areas of intensively managed amenity grassland, isolating the site from more suitable badger habitat within the wider landscape.

Badgers are not considered to be present on site or within the immediate vicinity of the site.

3.3.4 Bats

There are no trees on site which could be used by roosting bats. Building 1 on site was subject to detailed internal and external building inspections as part of a bat scoping survey that was undertaken concurrently with the PEA walkover survey. Full details of the assessment of the buildings potential to support roosting bats is detailed within the bat scoping report (see report reference UES03609/02). In summary, despite the presence of PRFs within the roof of the building, the proposed development will not directly impact upon the roof or any of the PRFs. The section of the building that is due to be impacted by the works is considered to have negligible potential to support roosting bats. No PRFs are due to be directly impacted by the proposals and no evidence was found during the internal and external inspections to suggest present or historic use by bats. As such, no further survey or mitigation work is required for the development to proceed with regards to bats.

Building 2 will be retained and unaffected by the development proposals. As such, this building was not subject to a detailed inspection as part of the bat scoping survey.

The intensively managed species-poor non-native hedgerow and the small areas of amenity grassland and introduced shrubs provide very limited foraging and commuting opportunities for bats.

3.3.5 Hazel dormouse

The habitats on site are unsuitable for hazel dormice *Muscardinus avellanarius*. There is no woodland or dense scrub on site and vegetation is limited to small areas of introduced shrubbery and a small section of species-poor hedgerow, composed entirely of non-native species. Additionally, the site is located within an urbanised area and is completely isolated from areas of suitable hazel dormice habitat within the wider landscape.

Hazel dormice are not considered to be present on site or within the immediate vicinity of the site.

3.3.6 Birds

Although a targeted bird survey was not conducted during the site visit, the following bird species were recorded within the vicinity of the site, although no birds were observed using the site itself: woodpigeon *Columba palumbus*, jackdaw *Corvus monedula* and blackbird *Turdus merula*.

A single historical bird nest was observed within the loft void of Building 1 during the internal building inspection (see Appendix 2 – Target Note 1), undertaken as part of a bat scoping survey. The nest was located between the tiles and the bitumen roof membrane, visible due to a tear in the membrane. This nest is considered to have been created by house sparrows *Passer domesticus*.

Building 1 contains several features that could be used by nesting birds such as raised roof tiles, and gaps where mortar is missing beneath at the ridgeline and the end roof tiles at the northern gable end. These features will all be retained and won't be impacted as part of the proposed development. The sections of the building that are due to be impacted by the proposals have no features suitable to support nesting birds.

The non-native species-poor hedgerow and the areas of introduced shrubs on site have some potential to support breeding birds in the spring and summer.

3.3.7 Trees

There are no tree species on site which are afforded statutory protection.

3.3.8 Hedgerows

There is a single species-poor non-native hedgerow at the site boundary. This hedgerow does not qualify as "important" for ecological or historical reasons under the Hedgerow Regulations and is of low ecological value.

3.3.9 Plant communities

No plant communities or individual species were recorded on site which are afforded statutory protection in their own right.

3.3.10 Invasive species

No invasive species were observed on site or within the immediate vicinity of the site.

3.3.11 Otter, water vole and otter

The site is located within an urban housing estate and there are no aquatic habitats on site or within the immediate vicinity of the site that are suitable to support otter *Lutra lutra*, water vole *Arvicola amphibius* or white-clawed crayfish *Austropotamobius pallipes*. These species are not considered to be present on site or within the immediate vicinity of the site.

4 EVALUATION AND RECOMMENDATIONS

This section provides a brief assessment of the likely impacts associated with the proposed development on the receptors identified during the walkover survey and desk study. It also includes any mitigation and compensation measures which may be required for the proposed development to proceed.

4.1 Habitats

4.1.1 Designated sites

The sites identified during the desk study were cross-referenced with the survey area relevant to this report. The closest statutorily protected site is Shorne and Ashenbank Woods SSSI, which lies approximately 1.8km south-east of the proposed development site. Given the distances from the site and the scale of development, it is considered unlikely that the proposed development will have any direct or indirect impact on this or any other nationally designated sites.

The site lies approximately 5km south-west of the Thames Estuary and Marshes SPA and Ramsar Site. Given the proposed developments relatively close proximity to these European designated site, and the potential for new residents to adversely impact these sites through increased recreational pressure, Natural England have stipulated that all new residential developments within this impact risk zone must make a financial contribution to mitigate the potential for increased recreational disturbance.

The developer has agreed to pay the required financial contribution to mitigate for any increased impacts the construction of a new dwelling would have upon the nearby Thames Estuary and Marshes SPA and Ramsar Site.

4.1.2 Hedgerows

There is a single short section of species-poor non-native hedgerow on site. This hedgerow is due to be retained as part of the proposals.

Construction impacts

Construction activities too close to the root protection area (RPA) of the retained hedgerow could cause permanent damage.

Mitigation

Any works close to the field boundaries should be mindful of the hedgerow and its root protection area.

Compensation

If the proposals change and the hedgerow is due to be removed, it should be replaced accordingly, with native species to be planted where possible.



Operational impacts

No operational impacts are envisaged.

4.2 Species

4.2.1 Birds

The non-native species-poor hedgerow and the areas of introduced shrubs on site have some potential to support breeding birds in the spring and summer. Additionally, a single historical bird nest (suspected to be house sparrow) was observed within the loft void of Building 1 during the internal building inspection, undertaken as part of a bat scoping survey.

The building contains a number of features that could be used by nesting birds such as raised roof tiles, and gaps where mortar is missing beneath the ridgeline and the end roof tiles at the northern gable end. These features will all be retained and won't be impacted as part of the proposed development. The sections of the building that are due to be impacted by the proposals have no features suitable to support nesting birds.

Construction impacts

Vegetation removal could result in the direct loss of nests, any individuals within the nests and of available nesting territories, if conducted during the breeding season.

Mitigation

Any vegetation clearance works are to take place outside of the breeding bird season and should not be undertaken from March to August inclusive. If this is not possible and works need to take place between this period, a targeted breeding bird nest scoping survey should be conducted by a suitably qualified ecologist immediately prior to the works, or an ecological clerk of works appointed to oversee the works.

If the proposals change to involve impacts to any section of the roof of the existing building, these works should also be undertaken outside of the nesting bird season and should not be undertaken from March to August inclusive.

Compensation and enhancement

Only small areas of vegetation are due to be removed as part of the proposals and as such, it is considered that compensatory planting is not required. However, if the proposals change and a significant proportion of the vegetation on site is to be removed, consideration should be given to providing replacement habitat for foraging and nesting birds by incorporating tree, shrub or scrub planting.

The provision of bird boxes as part of the development would provide an ecological enhancement. Bird boxes that could be used on site include:

- Schwegler 1B nest box (affixed to the building)
- Schwegler 1SP sparrow terrace (affixed to the external walls of the building, directly below the eaves)
- Schwegler 1MR Avianex box (affixed to the building)



- Manthorpe swift nest brick (incorporated into the external walls of building, directly below the eaves)

Bird boxes should be sited at a minimum height of three metres. Unless there are trees or buildings which shade the box during the day, the boxes should be oriented between north and east, thus avoiding strong sunlight and the wettest winds.

Operational impacts

No operational impacts are envisaged.



5 CONCLUSION

The proposed development site has an area of approximately 300m² and comprises a residential dwelling and an associated garden area, located on the south-eastern outskirts of Gravesend, Kent. The habitats within the development boundary include a single end-terrace residential dwelling and associated hardstanding car parking, small areas of introduced shrub, amenity grassland and a short section of species-poor non-native hedgerow.

The preliminary ecological appraisal has highlighted potential issues with the following ecological receptors on or adjacent to site: breeding birds, designated sites and hedgerows. Provided these issues are addressed in accordance with the recommendations detailed in this report, the development may proceed without adversely impacting the aforementioned ecological receptors.

The development also presents an opportunity to enhance the habitats available to wildlife on site. The provisioning of bat and bird nest boxes on site will provide improved roosting and nesting opportunities into the long-term future of the site.



6 REFERENCES

CIEEM (2017). *Guidelines for Preliminary Ecological Appraisal* (Second Edition).

DEFRA (2019). *MAG/C* [online]. Available at: <http://magic.defra.gov.uk/>.

JNCC (2010). *Handbook for Phase 1 habitat survey: A technique for environmental audit*.

MHCLG (2021). National Planning Policy Framework (NPPF).

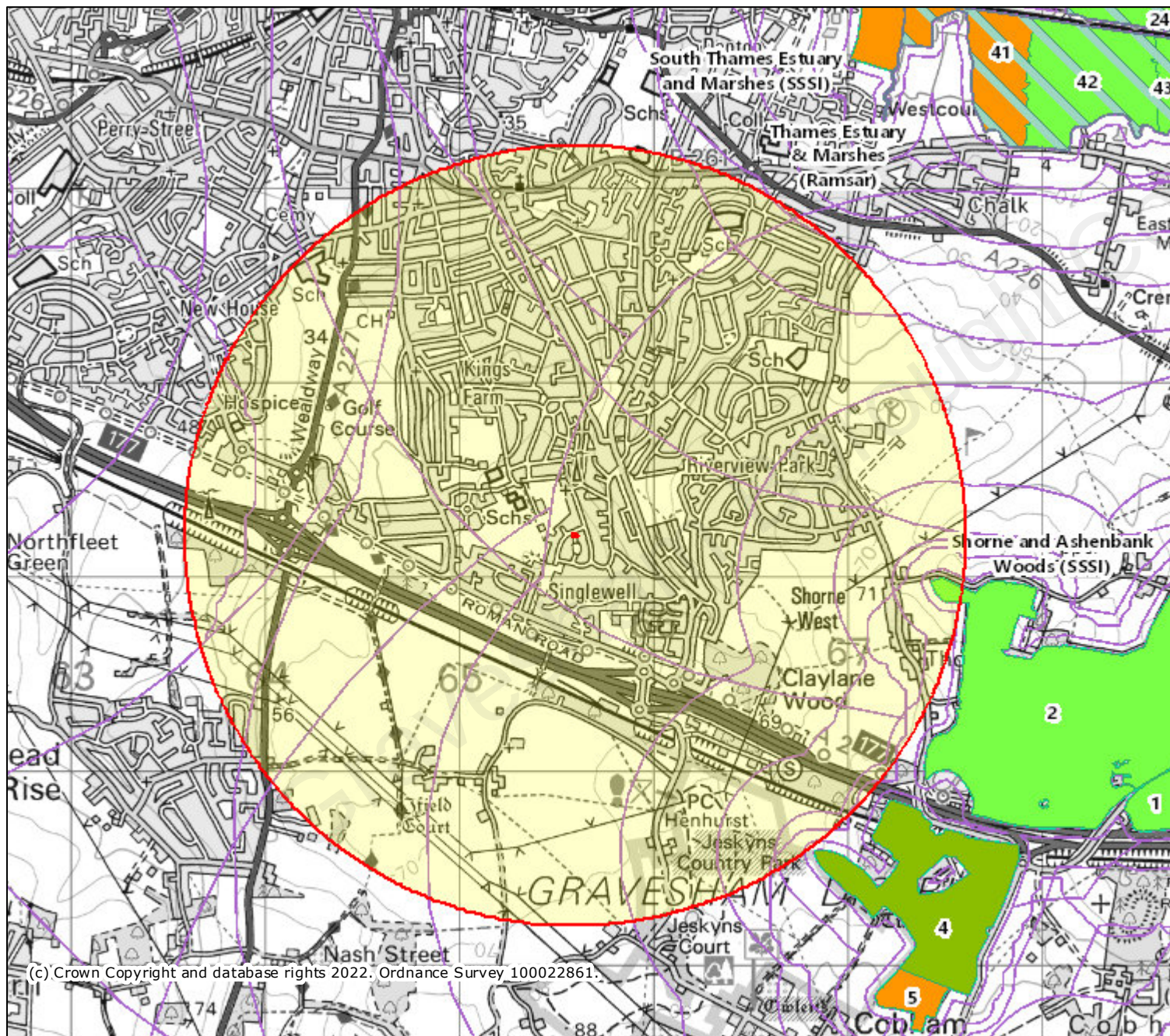
Gravesham Borough Council



APPENDICES

Appendix 1 – Desk study

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Legend

- | | | | |
|---|------------------------------------|--|---|
| | Local Nature Reserves (England) | | Sites of Special Scientific Interest (England) |
| | National Nature Reserves (England) | | SSSI Impact Risk Zones - to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites (England) |
| | Ramsar Sites (England) | | Special Areas of Conservation (England) |
| Sites of Special Scientific Interest Units (England) | | | Possible Special Areas of Conservation (England) |
| | Favourable Condition | | Special Protection Areas (England) |
| | Unfavourable Recovering | | Potential Special Protection Areas (England) |
| | Unfavourable no change | | Biosphere Reserves (England) |
| | Unfavourable Declining | | |
| | Part Destroyed | | |
| | Destroyed | | |
| | Not Assessed | | |

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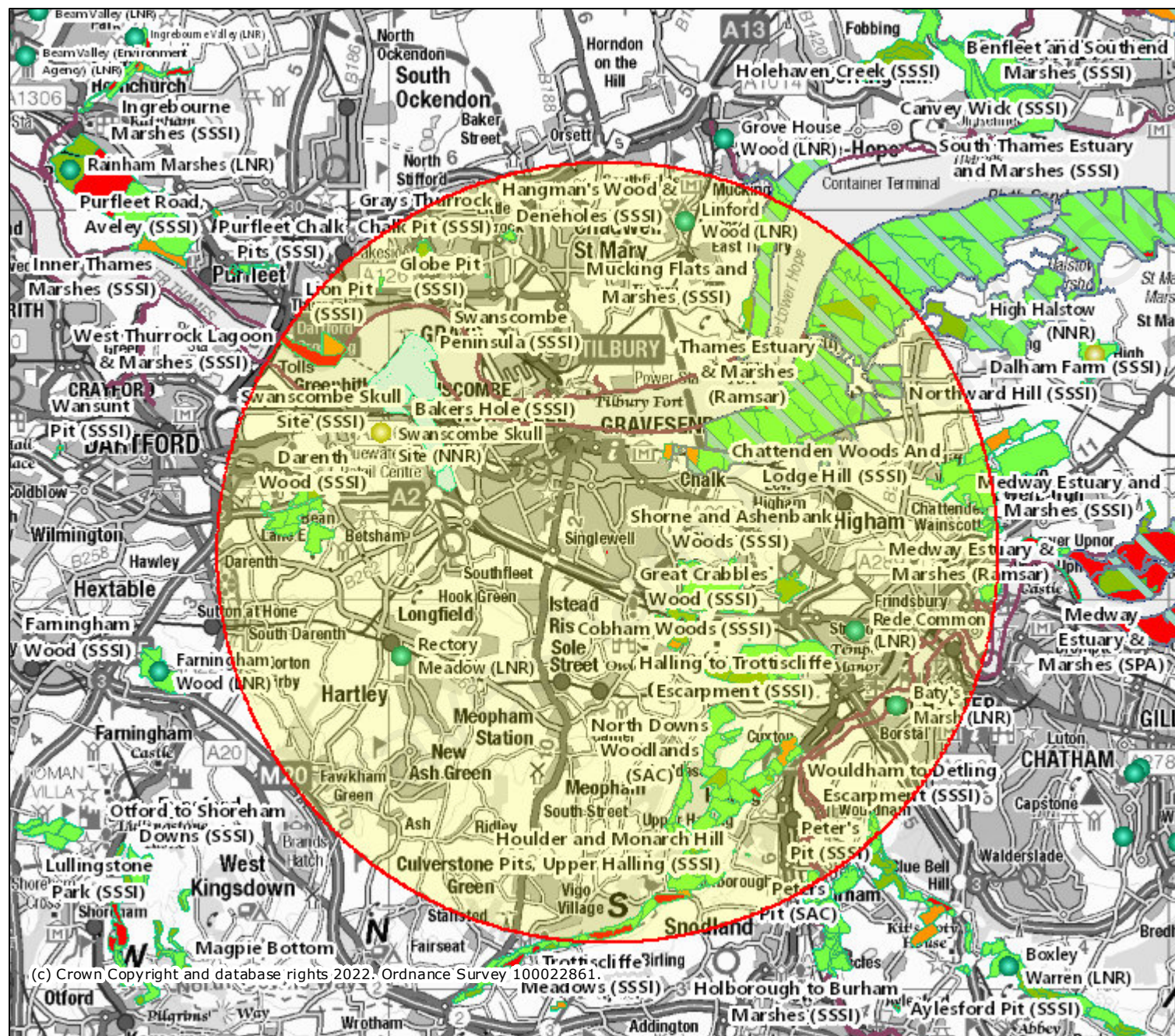
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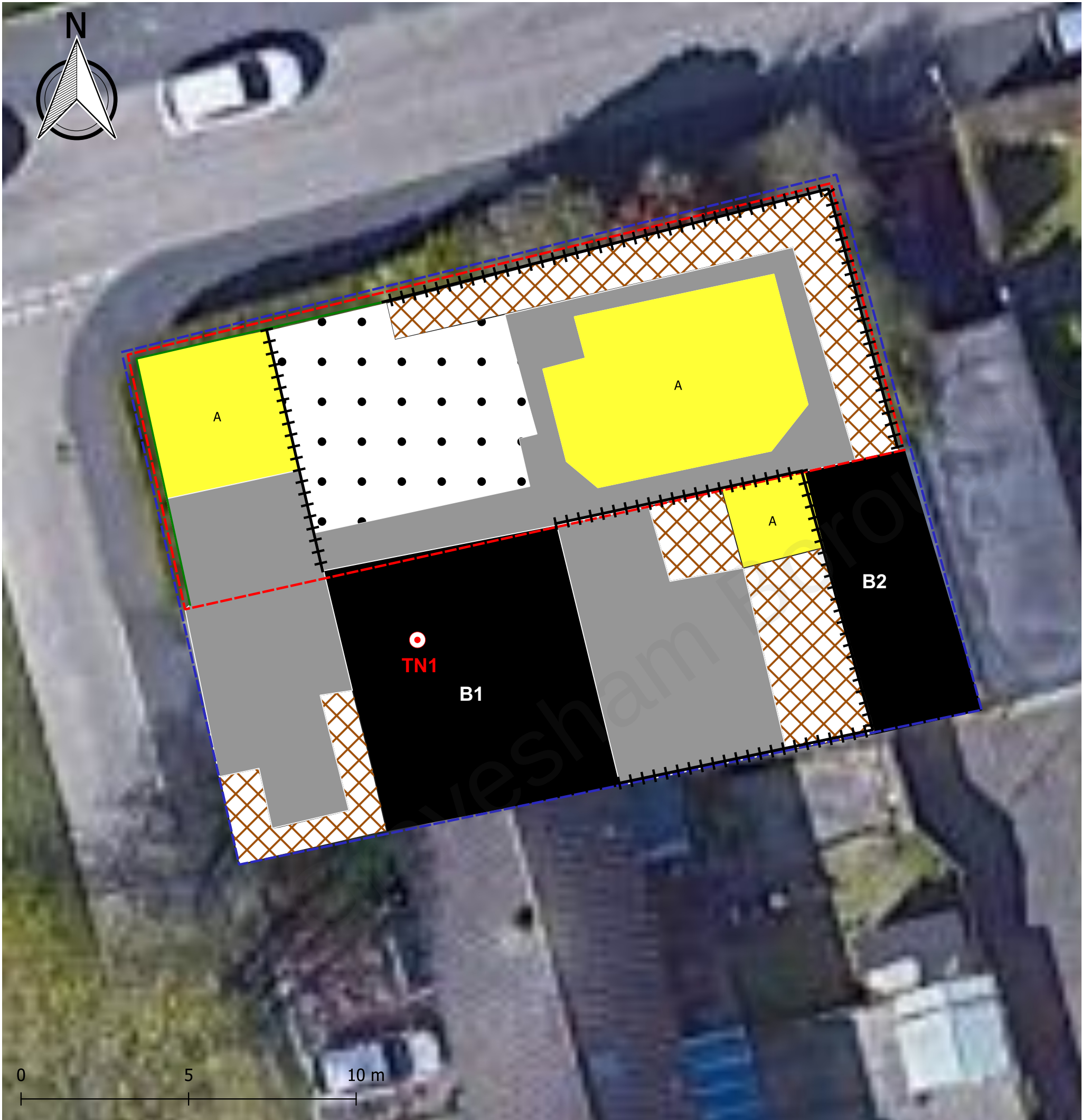




Appendix 2 – Phase 1 habitat plan

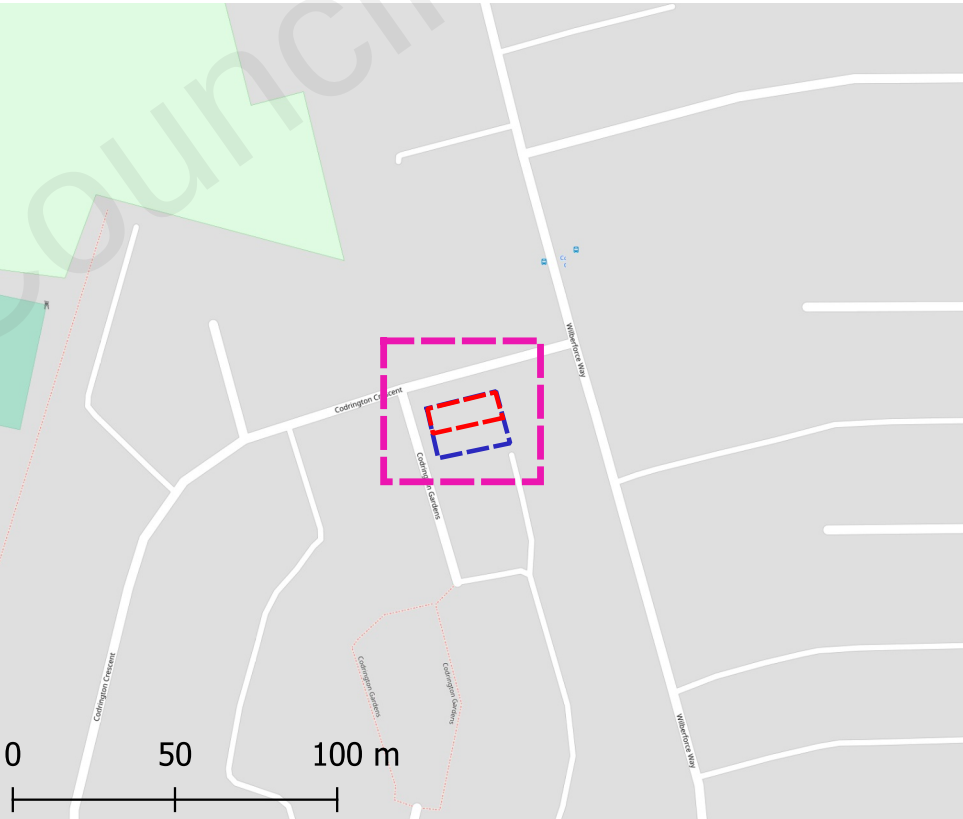
Target Note 1 - Suspected house sparrow nest

Gravesham Borough Council



Preliminary Ecological Appraisal

Site: 1 Codrington Gardens,
Gravesend
NGR: TQ 65590 71216
Author: Tom Kenwright
Date: 11/01/2022



- KEY:**
- | | | |
|--------------------------------------|--------------------------|----------------------|
| A | J1.2 - Amenity grassland | J4 - Bare ground |
| J1.4 - Introduced shrub | J5 - Hardstanding | Development boundary |
| J2.1.2 - Intact hedge - species-poor | J2.4 - Fence | Survey boundary |
| J3.6 - Buildings | Target Notes | |

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Appendix 3 – Aerial photographs

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**1 Codrington Gardens –
Gravesend**

Close aerial photograph

— Survey boundary





**1 Codrington Gardens –
Gravesend**

Wide aerial photograph

→ Site location



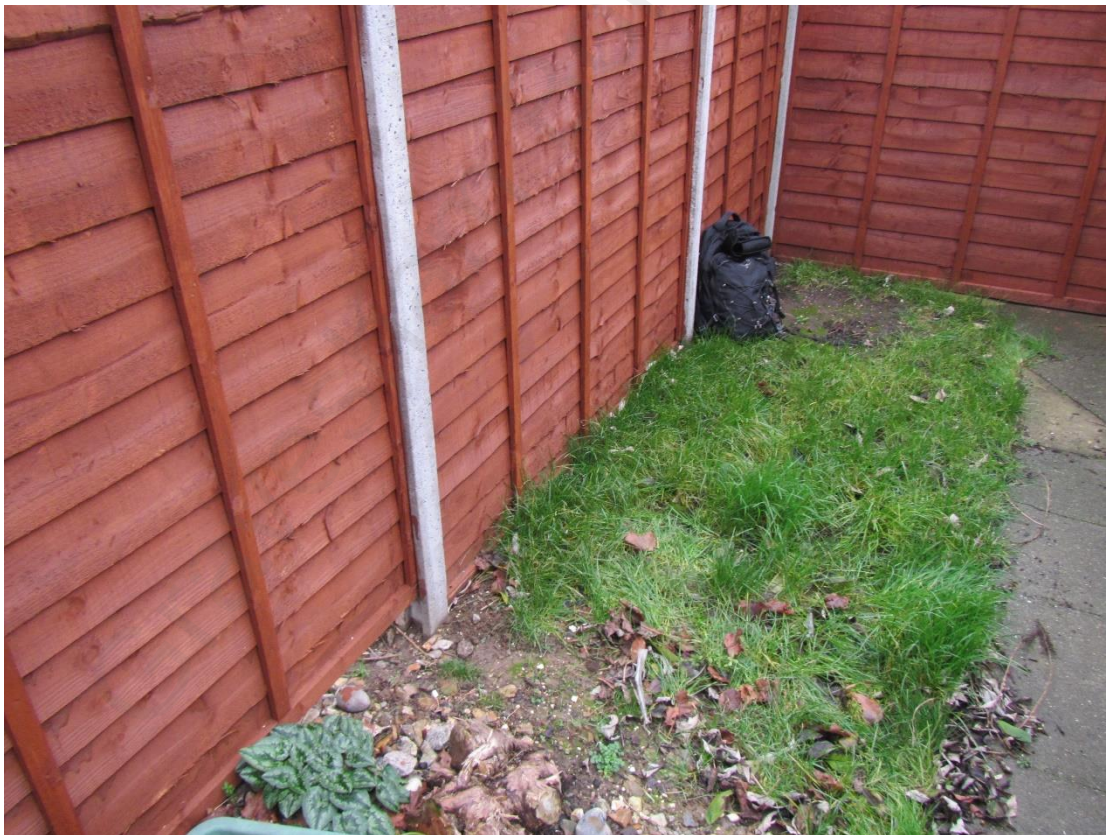


Appendix 4 – Photographs

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Photograph 1 – Looking east across the proposed development site.



Photograph 2 – Example of small areas of amenity grassland lawn on site.



Photograph 3 – Amenity grassland lawn within the development boundary that has been subject to disturbance.



Photograph 4 – Introduced shrubs present within the development boundary.



Photograph 5 – Intact native-species-poor hedgerow that demarcates part of the development boundary.



Photograph 6 – Areas of bare ground and hardstanding within the development boundary.



Photograph 7 – Looking east towards Building 1, an end-terrace residential dwelling that will be retained as part of the development proposals.



Photograph 8 – Potential bat roosting features are present within the roof of Building 1. These features will be retained and unaffected by the development.



Photograph 9 – Potential bat roosting features are present within the roof of Building 1. These features will be retained and unaffected by the development.



Photograph 10 – Looking towards Building 2, a single-storey shed / out building that will be retained as part of the proposals.



Appendix 5 – Botanical species list

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Scientific Name	English Name	Habitats						
		J1.2 Amenity grassland	J1.4 Introduced shrub	J2.1.2 Species-poor intact hedge	J2.4 Fence	J3.6 Buildings	J4 Bare ground	J5 Hardstanding
<i>Hebe sp.</i>	Hebe		X					
<i>Buddleia sp.</i>	Butterfly bush		X					
<i>Cyclamen sp.</i>	Cyclamen		X					
<i>Lolium perenne</i>	Perennial ryegrass	X						
<i>Primula vulgaris</i>	Primrose		X					
<i>Mahonia aquifolium</i>	Mahonia		X					
<i>Cotonester sp.</i>	Cotonester			X				
<i>Prunus laurocerasus</i>	Cherry laurel			X				
<i>Rubus fruticosus agg.</i>	Bramble			X				
<i>Ilex aquifolium</i>	Holly			X				
<i>Hedera helix</i>	Ivy			X				
<i>Geum urbanum</i>	Wood avens	X		X				
<i>Galium aparine</i>	Cleavers	X		X				
<i>Taraxacum officinale agg.</i>	Dandelion	X						
<i>Lapsana communis</i>	Nipplewort	X		X				
<i>Holcus lanatus</i>	Yorkshire fog	X						
<i>Viola sp.</i>	Violet	X						
<i>Cardamine hirsuta</i>	Hairy bittercress	X						
<i>Bergenia sp.</i>	Elephants ear			X				



Appendix 6 – Planning and statutory context

Gravesend Borough Council

Ecological assessments

Ecological assessments play an important part within the planning context; they include an initial assessment which highlights any specific interests of a site. From the initial site assessment, the surveyor assesses the suitability of habitats within the site to support protected species and makes recommendations for further survey works if required. The following paragraphs provide a brief interpretation of legislative protection in relation to the following species and habitats:

Amphibians

Great crested newts
Other amphibians
Reptiles
Badgers
Hazel dormouse
Bats
Birds

Trees

Hedgerows
Invasive plant species
Otters
Water voles
White-clawed crayfish
Planning policy

Amphibians

Great crested newts

Great crested newts (GCN) *Triturus cristatus* and their habitat (aquatic and terrestrial) are afforded full protection by the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Amendment (EU exit) Regulations 2019. If both national and international legislation are taken together, it is an offence to:

- Deliberately, intentionally or recklessly kill, injure or capture GCN
- Deliberately, intentionally or recklessly disturb GCN in such a way to be likely to significantly affect:
 - their ability to survive, breed, reproduce, rear or nurture their young
 - their ability to hibernate or migrate
 - their local distribution or abundance
- Deliberately, intentionally or recklessly take or destroy the eggs of GCN
- Damage or destroy breeding sites or resting places of GCN
- Intentionally or recklessly disturb sheltering GCN, or obstruct access to their resting place
- Keep, transport, sell or exchange, or offer for sale or exchange any live or dead GCN, any part of GCN or anything derived from GCN

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

GCN are also protected by the Protection of Animals Act 1911, which prohibits cruelty and mistreatment. Releasing a GCN in such a way as to cause undue suffering may be an offence under the Abandonment of Animals Act 1960.

In addition to the above, there are various statutory provisions relating to the transport of animals, designed to ensure their welfare. GCN are also listed under Section 41 of the NERC Act (see bats section for further details).

It is important to identify the presence of GCN individuals and also to identify suitable habitat on sites so that legal obligations regarding this species can be observed. If a survey identifies the presence of GCN on the site, an assessment of the population size class is required. This can then inform a mitigation scheme, which would need to be developed in liaison with the local Natural England team, and which minimises direct threats to newts and compensates for any loss of habitat. A licence issued by Natural England is required for the legal implementation of a mitigation scheme.

A Natural England mitigation licence application requires a Mitigation Method Statement and a Reasoned Statement of Application. The Mitigation Method Statement contains details of the proposed mitigation works. The Reasoned Statement needs to provide a rational and reasoned justification as to why the

proposed development meets the requirements of the Conservation (National Habitats & c.) regulations 1994, namely Regulations 44(2)(e), (f) or (g), and 44(3)(a).

Other amphibians

More common British amphibians, such as common frog *Rana temporaria*, common toad *Bufo bufo*, smooth newt *Triturus vulgaris* and palmate newt *Triturus helveticus* are protected only by Section 9(5) of the Wildlife and Countryside Act 1981 (as amended). This section prohibits sale, barter, exchange, transporting for sale and advertising to sell or to buy.

The above named species are also listed as UK Species of Conservation Concern. Due to general declines in most British amphibian species in recent years, many local authorities require amphibian surveys as a planning condition, or as part of environmental information submitted as part of a planning application, even where the presence of GCN is ruled out.

Natterjack toad *Bufo calamita* and pool frog *Pelophylax lessonae* are also offered the same level of protection as GCN, through the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017.

Natterjack toad, common toad and pool frog are also listed under Section 41 of the NERC Act (see bats section for further details).

Water bodies that support all five (more common) species of British amphibians in high numbers, may be afforded protection in local plans, as Sites of Importance for Nature Conservation (SINC), or a similar equivalent, for sites of local importance. A site may require statutory protection as a Site of Special Scientific Interest (SSSI).

Reptiles

Common lizard *Zootoca vivipara*, slow-worm *Anguis fragilis*, grass snake *Natrix natrix* and adder *Vipera berus* are protected under the Wildlife and Countryside Act 1981 (as amended). They are listed as a Schedule 5 species therefore part of Section 9(1) and section 9(5) apply. The Countryside and Rights of Way Act 2000 also strengthens their protection. It is offence to:

- Intentionally or recklessly kill or injure any of the species listed above
- Sell, offer, advertise or transport for sale a live or dead animal of the species listed above

If a proposed development is likely to have an impact on these reptiles the local statutory nature conservation organisation must be consulted.

Sand lizard *Lacerta agilis* and smooth snake *Coronella austriaca* receive full protection under the Wildlife and Countryside Act 1981 (as amended) and Conservation of Habitats and Species Regulations 2017. Read together, it is an offence to:

- Deliberately, intentionally or recklessly kill, injure or capture any sand lizards or smooth snakes
- Deliberately, intentionally or recklessly disturb sand lizards or smooth snakes in such a way to be likely to significantly affect:
 - their ability to survive, breed, reproduce, rear or nurture their young
 - their ability to hibernate or migrate
 - their local distribution or abundance
- Deliberately, intentionally or recklessly take or destroy the eggs of such an animal
- Damage or destroy breeding sites or resting places of such animals
- Intentionally or recklessly disturb sheltering sand lizards or smooth snakes, or obstruct access to their resting place
- Keep, transport, sell or exchange, or offer for sale or exchange any live or dead sand lizards or smooth snakes, any part of such an animal or anything derived from such an animal

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

All reptile species are also listed under Section 41 of the NERC Act (see bats section for further details).

Badgers

European badgers *Meles meles* and their habitat are protected under The Protection of Badgers Act 1992 and are also included on Schedule 6 of the Wildlife and Countryside Act 1981, and Appendix III of the Bern Convention. The legislation affords badgers protection against deliberate harm or injury making it an offence to:

- Wilfully kill, injure, take, possess or cruelly ill-treat a badger (or attempt to do so)
- To interfere with a sett by damaging or destroying it
- To obstruct access to, or entrance of, a badger sett
- To disturb a badger whilst it is occupying a sett

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

Works that disturb badgers whilst they are occupying a sett are illegal without a licence. Disturbance can occur even without direct interference or damage to the sett in question. In general, the following activities are likely to require a licence:

- Use of heavy machinery or significant earth moving within 30m of a sett
- Use of lighter machinery (usually any wheeled vehicles) within 20m of a sett
- Any digging, chain saw use or scrub clearance within 10m of a sett

Hazel dormouse

Hazel dormice *Muscardinus avellanarius* are offered full protection through the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017. If both national and international legislation are taken together, it is an offence to:

- Deliberately, intentionally or recklessly kill, injure or capture dormice
- Deliberately, intentionally or recklessly disturb dormice in such a way to be likely to significantly affect:
 - their ability to survive, breed, reproduce, rear or nurture their young
 - their ability to hibernate or migrate
 - their local distribution or abundance
- Damage or destroy breeding sites or resting places of dormice
- Intentionally or recklessly disturb sheltering dormice, or obstruct access to their resting place
- Keep, transport, sell or exchange, or offer for sale or exchange any live or dead dormouse, any part of a dormouse or anything derived from a dormouse

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

Dormice are also listed under Section 41 of the NERC Act (see bats section for further details).

Bats

In the United Kingdom, all species of bat and their roosts are afforded full protection under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (known as the "Habitats Regulations"). The Wildlife and Countryside Act is the domestic implementation of the Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention) and was amended by the Countryside and Rights of Way Act 2000. This makes it an offence to:

- Deliberately, intentionally or recklessly kill, injure or capture a bat

- Deliberately, intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection
- Deliberately, intentionally or recklessly damage, destroy or obstruct access to any place that a bat uses for shelter or protection (even if the bat is not present at the time)
- Keep, transport, sell or exchange, or offer for sale or exchange any live or dead bat, any part of a bat or anything derived from a bat

Under UK law, a bat roost is *any structure or place which any wild [bat] ... uses for shelter or protection*. As bats often reuse the same roosts, legal opinion is that a roost is protected whether or not the bats are present at the time of the activity taking place.

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

If an activity is likely to result in any of the above offences, a licence can be applied for to derogate from the protection afforded. These licences must provide appropriate mitigation and are issued by Natural England.

A Natural England mitigation licence application requires a Mitigation Method Statement and, in many cases, a Reasoned Statement of Application. The Mitigation Method Statement contains details of the proposed mitigation works. The Reasoned Statement needs to provide a rational and reasoned justification as to why the proposed development meets the requirements of the Conservation (National Habitats & c.) regulations 1994, namely Regulations 44(2)(e), (f) or (g), and 44(3)(a).

The Natural Environment and Rural Communities (NERC) Act 2006 lists the following bat species as species of principle importance under Section 41:

- Barbastelle *Barbastella barbastellus*
- Bechstein's bat *Myotis bechsteinii*
- Noctule *Nyctalus noctula*
- Soprano Pipistrelle *Pipistrellus pygmaeus*
- Brown Long-eared bat *Plecotus auritus*
- Greater Horseshoe *Rhinolophus ferrumequinum*
- Lesser Horseshoe *Rhinolophus hipposideros*

Section 40 requires every public body in the exercising of its functions 'have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity' (all biodiversity and not just section 41 species and habitats); therefore making these bats a material consideration in the planning process and requiring a detailed ecological bat survey before planning permission can be granted.

Birds

All wild birds, their nests and young are protected throughout England and Wales by the Wildlife & Countryside Act 1981 (as amended). It is illegal to kill, injure or take any wild bird, or damage or destroy the nest or eggs of breeding birds. The legislation applies to all bird species, common and rare.

In addition to the protection afforded to all wild birds, more vulnerable species listed on Schedule 1 of the Act receive enhanced protection when breeding. Schedule 1 species, including their dependent young, are protected from intentional or reckless disturbance whilst at or near the nest, in addition to the protection afforded the more common species.

The NERC Act offers further protection to the nests of some species that regularly re-use their nests, even when the nests are not in use.

The leading governmental and non-governmental conservation organisations in the UK have reviewed the population status' of 244 UK bird species. "Birds of Conservation Concern 4: the Red List for Birds" is the most recent publication summarising their findings. Three lists, Red, Amber and Green, have been produced based on the most up-to-date evidence available and criteria include conservation status at global and European levels and, within the UK: historical decline, trends in population and range, rarity,

localised distribution and international importance. These lists are a valuable resource when considering conservation priorities.

Trees

Trees may be protected on an individual or group level through a Tree Preservation Order (TPO). In order to carry out works to trees with a TPO, prior written consent must be obtained from the Local Planning Authority. Trees may also be protected through a condition of planning consent or designated conservation areas.

Hedgerows

The Hedgerow Regulations are made under Section 97 of the Environment Act 1995 and came into operation on 1st of June 1997. They aim to protect important hedgerows in the countryside by controlling their removal through a system of notification to the Local Planning Authority.

A hedgerow can only be considered for classification as “important” if it, or the hedgerow of which the section belongs to is over 20m in length (or which meets a hedgerow at either end) and has existed for 30 years or more.

Invasive plant species

A number of invasive, non-native plant species are listed under Schedule 9 (Part II) of the Wildlife and Countryside Act 1981 (as amended). The most commonly encountered listed species in ecological surveys are Japanese knotweed *Fallopia japonica*, Montbretia *Crocasmia x crocosmiiflora* and variegated yellow archangel *Lamiastrum galeobdolon subsp. argentatum*. Section 14(2) of this Act makes it an offence to *plant or otherwise cause to grow in the wild* any plant listed on Schedule 9 (Part II). These provisions are necessary to prevent the establishment of non-native species which may be detrimental to our native wildlife.

A number of invasive, non-native plants species are listed under Schedule 2 (Part II) of the Invasive Alien Species (Enforcement and Permitting) Order 2019. The most commonly encountered listed species in ecological surveys are Himalayan balsam *Impatiens glandulifera* and giant hogweed *Heracleum mantegazzianum*. Section 3 of this Act make it an offence to *plant or otherwise causes to grow in the wild* any plant which is listed on Schedule 2 (Part II). These provisions are necessary to prevent the establishment of non-native species which may be detrimental to our native wildlife.

Soil or plant material contaminated with non-native and invasive plants can cause ecological damage and may be classified as controlled waste. It is an offence to keep, treat or dispose of waste that could harm the environment or human health. If there is any doubt, contact the local authority or Environment Agency.

Otters

European otter *Lutra lutra* are offered full protection through the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017. If both national and international legislation are taken together, it is an offence to:

- Deliberately, intentionally or recklessly kill, injure or capture otters
- Deliberately, intentionally or recklessly disturb otters in such a way to be likely to significantly affect:
 - their ability to survive, breed, reproduce, rear or nurture their young
 - their ability to migrate
 - their local distribution or abundance
- Damage or destroy breeding sites or resting places of otters
- Intentionally or recklessly disturb sheltering otters, or obstruct access to their resting place
- Keep, transport, sell or exchange, or offer for sale or exchange any live or dead otter, any part of an otter or anything derived from otter

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

Otters are also listed under Section 41 of the NERC Act (see bats section for further details).

Water voles

Water voles *Arvicola amphibius* are protected by the provisions of Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to:

- Intentionally kill, injure or take water vole
- Possess or control live or dead water vole or any part of a water vole
- Intentionally or recklessly damage destroy or obstruct access to any structure or place which a water vole uses for shelter or protection, or disturb water vole using such a place
- Sell, offer, advertise or transport live or dead water voles for sale

Licences are available from Natural England to allow activities that would otherwise be an offence, including:

- Scientific or educational purposes
- For the purposes of ringing or marking
- Conserving wild animals or introducing them into particular areas
- Preserving public health or public safety
- Preventing the spread of disease
- Preventing serious damage to any form of property or to fisheries

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

Water voles are also listed under Section 41 of the NERC Act (see bats section for further details).

White-clawed crayfish

White-clawed crayfish *Austropotomobius pallipes* are protected under the Wildlife and Countryside Act 1981 (as amended). They are listed as a Schedule 5 species therefore part of Section 9(1) and section 9(5) apply. The Countryside and Rights of Way Act 2000 also strengthens their protection. It is offence to:

- Intentionally or recklessly kill or injure white-clawed crayfish
- Sell, offer, advertise or transport for sale a live or dead white-clawed crayfish

If a proposed development is likely to have an impact on white-clawed crayfish then the local statutory nature conservation organisation must be consulted.

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

Their inclusion on the EC Habitats Directive allows areas to be designated as Special Areas of Conservation (SAC) for the presence of white-clawed crayfish. Such a designation brings legal protection under the Conservation of Habitats Regulations 2017, this includes how the site is managed and what development can occur on and in proximity to these sites.

White-clawed crayfish are also listed under Section 41 of the NERC Act (see bats section for further details).

Planning policy

The National Planning Policy Framework 2021 (NPPF) provides guidance on the interpretation of the law in relation to the natural environment and development.

National Planning Guidance is issued in the form of the National Planning Policy Framework 2021 (NPPF). The most relevant section is 15: Conserving and enhancing the natural environment.

Key relevant principles stated in 15: Conserving and enhancing the natural environment are;

- 174.** Planning policies and decisions should contribute to and enhance the natural and local environment by:
- a) 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);
 - b) 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;
 - c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
 - d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
 - e) 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. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
 - f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.
- 179.** To protect and enhance biodiversity and geodiversity, plans should:
- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity⁶¹; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation⁶²; and
 - b) 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
- 180.** When determining planning applications, local planning authorities should apply the following principles:
- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
 - b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
 - c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons⁶³ and a suitable compensation strategy exists; and
 - d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.