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Report prepared for: Mr. David Walsh

For the Site of: The Graylings, Croydon, Surrey, CR3 7LN

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Ecological reports are limited in shelf life, Natural England usually expect reports for licenses to be no more than 12 months old and therefore should the project not proceed within 12 months of this report an updated survey should be undertaken in order to check for changes that may have occurred on site.

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Contents

Preliminary Ecological Appraisal (PEA)

0.0 None Technical Summary

Background -

The survey follows national guidelines JNCC (2010) allowing for a day-time inspection and recommendations for further surveys if considered necessary. If a deviation from the guidelines has been made this will be detailed in the Method Section.

The following report details the findings and recommendations for the site of The Graylings, Croydon, Surrey, CR3 7LN.

The client commissioned Cherryfield Ecology to undertake a PEA as the proposals include for demolishing the current part built dwelling and replacing this with a new build.

Results and Findings -

The site is a plot situated on a slope with a partly built dwelling situated to the road edge. The remaining site consists of bare-ground/tall ruderal vegetation and had until recently been swamped by bramble. The site has suitability for bats, reptiles and breeding birds.

Impact Assessment and Recommendations -

The building B1 being demolished would likely result in a loss of a bat roost and potential hibernation site. Reptiles assuming they are present would be affected by the proposed works regardless of the positioning of the new dwelling.

Further survey will be required for bats and reptiles as detailed in section 4 of the report.

1.0 Introduction

The client, Mr. David Walsh, has commissioned Cherryfield Ecology to undertake a PEA for the site of The Graylings, Croydon, Surrey, CR3 7LN. Planning permission is being sought to demolish the part built structure and replace this with a new dwelling.

This survey has checked all habitats, buildings, trees or structures due to be affected by the proposals for the habitats on site, protected species, signs of protected species or habitat value e.g. crevices, badger setts, ponds etc. that cannot be checked for a variety of reasons.

The inspection was conducted on the 18/07/2016.

The survey can only ever provide a 'snap shot' of the site at the time of the survey and circumstances may change following this report. Health and Safety restrictions or obstructions may limit the ability to find evidence.

Biological records have been requested to give the report context and allow a study of the surrounds. The information is often sensitive and therefore a synopsis is provided and the full data released separately for verification.

The survey can be conducted between mid-March and mid-October (south)/1st April and 30th September (north), however it can be limited due to bad weather and in the winter, when some species are not s active, thus evidence and species are often not found. During these periods habitat value (likely presence) becomes more important to the assessment of the site.

Summary of legislation and National Planning Policy that protects wildlife in England:

- Conservation of Habitats and Species Regulations 2010.
- Wildlife and Countryside Act 1981 as amended.
- Countrywide and Rights of Way Act 2000.
- Natural Environment and Rural Communities Act 2006.
- National Planning Policy Framework ("NPPF").
- Circular 06/05.

This legislation makes it illegal to:

- Intentionally or deliberately kill, injure or capture a protected species.
- Deliberately disturb bats, whether at rest or not.
- Damage, destroy or obstruct access to a resting place.
- Possess or transport a protected species or any part of a said species, unless acquired legally.
- Sell, barter or exchange a protected species, or any part of the species.

Species Specific information: -

All EU protected species have the same protection and the detail under Bats also applies to GCN, Dormouse, Otters and the two EU protected reptiles.

Breeding birds

All nesting birds are protected under the Wildlife and Countryside Act (as amended) 1981, which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. Furthermore a number of birds enjoy further protection under that Act and are listed on Schedule 1 of the Act. These further protected birds are also protected from disturbance and it may be necessary to operate a "no-go" buffer zone around such nests - typically out to 5m.

Bats

All 18 species of bat common in the UK (17 known to be breeding) are fully protected under the Wildlife and Countryside Act (as amended) 1981 through inclusion in Schedule V of the Act. All bat species in the UK are also included in Schedule II of the Habitats Regulations 2010 which transpose Annex II of the Council Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora ("EC Habitats Directive") which defines European protected species of animals.

Bats species are afforded further protection by the Countryside and Rights of Way Act 2000; and the Natural Environment and Rural Communities Act 2006.

This combined legislation makes it an offence to:

1. Intentionally or deliberately kill, injure or capture bats.
2. Deliberately disturb bats, whether at roost or not.

3. Damage, destroy or obstruct access to bat roosts.
4. Possess or transport bats, unless acquired legally.
5. Sell, barter or exchange bats.

Reptiles

There are six species of reptiles in Great Britain (Edgar et al. 2010) and four of these are commonly found; the grass snake (***Natrix natrix***), adder (***Vipera berus***), common lizard (***Zootoca vivipara***) and slow worm (***Anguis fragilis***).

All native British species of reptiles are legally protected through their inclusion in Schedule V of the Wildlife and Countryside Act 1981. As such, all species are protected from deliberate killing or injury. Therefore, where development is permitted, and there will be a significant change in land use, a reasonable effort must be undertaken to avoid committing an offence. The same act makes the trading of native reptile species a criminal offence without appropriate licensing.

Two species of reptile; the smooth snake (***Coronella austriaca***) and sand lizard (***Lacerta agilis***), are further protected through their inclusion in Schedule II of the Habitats Regulations 2010 which transposes Annex II of the Council Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora ("EC Habitats Directive"), which defines European protected species of animals ("rare reptiles.")

Badgers

Badgers (***Meles meles***) Both the badger and its habitat are protected under The Protection of Badgers Act 1992, Schedule V of the Wildlife and Countryside Act 1981, and Appendix III of the Bern Convention 1979.

This legislation makes it an offence to:

- Kill, injure, take or possess a badger.
- Interfere with, damage or destroy a badger sett including e.g. obstruct access to a badger sett.
- Cruelly treat or harm a badger.
- Disturb a badger in a sett.

Great Crested Newts

Great crested newts are listed in both Annex IV of the EC Habitats Directive and in Schedule V of the Wildlife and Countryside Act 1981.

GCN are afforded further protection by the Countryside and Rights of Way Act 2000; and the Natural Environment and Rural Communities Act 2006.

2.0 Methods

The survey follows the national guidelines JNCC (2010) and the following equipment is available for the inspection:

- Torches (e.g. LED Lensar type).
- Ladders (Standard 4m telescopic surveying ladder).
- Endoscope where holes, cracks and crevices are accessible.
- Mirrors (extendable and movable mirror face).
- Binoculars (Pentax close focus).
- Thermometer/hygrometer.
- Camera.
- Sample bags for collecting dropping and feeding evidence.

Target notes are made when appropriate to highlight e.g. protected species or an 'other feature(s)' of ecological note.

If a deviation from the guidelines has been made the reason and justification will be explained below: -

No deviation from the standard guidelines has been made for this survey.

Table 1: Habitat value (likelihood) of protected species presence assessed against Collis (2016), Edgar ***et al*** (2010) and NE (2007) etc.

Likelihood of species presence (Habitat Value)	**Features that species can and will use, regardless of evidence being present.**
Confirmed Presence	Species are found to be present during the survey. Evidence of species is found to be present during the survey.
Higher likelihood of presence.	Buildings, trees or other structures with features of particular significance for use by protected species e.g. nesting habitat, roosting opportunities, and ponds. Habitat of high quality for foraging e.g. broadleaved woodland, tree-lined watercourses and grazed parkland. Site is connected with the wider landscape by strong linear features that would be used by commuting species e.g. river and or stream valleys and hedgerows. Site is close to known locations of records for protected species.

Moderate and Lower likelihood of species presence.	Several potential habitat opportunities in buildings, trees or other habitats. Habitat could be used for foraging e.g. trees, shrub, grassland or water. Site is connected with the wider landscape by linear features that could be used by commuting species e.g. lines of trees and scrub or linked back gardens. A small number of less significant habitat opportunities. Isolated habitat for foraging e.g. a lone tree or patch of scrub. An isolated site not connected by prominent linear landscape features.
Negligible likelihood of species presence.	No features suitable for roosting, minor foraging or commuting.

3.0 Results

The following section details the results of the desk study, inspection and survey, it includes MAGIC information, biological records data and map/aerial photo information. The results detail the building, structure or tree (numbered for reference) description of any evidence found and habitat value if no evidence has been located.

3.1 Desk Study

The desk study is centred on Grid Ref - TQ361570 and postcode - CR3 7LN.

Table 2: Weather records -

Temperature	31C
Cloud cover	0
Precipitation	none
Wind	1/8

Magic:

The following statutory sites have been located on the search (see Figure 1)-

- There are two EPS licences that have been issued for the general area. Both are for common pipistrelle ***Pipistrellus pispitrellus*** and both are located northwest of the site, some 1km and 1.6km northwest.
- There is a single SSSI within the search area located approx. 1.8km to the south, known as Woldingham and Oxted Downs and has been designated for its downland habitats including rich calcareous grassland, scrub and mixed woodland habitats.

MAGIC

The Graylings

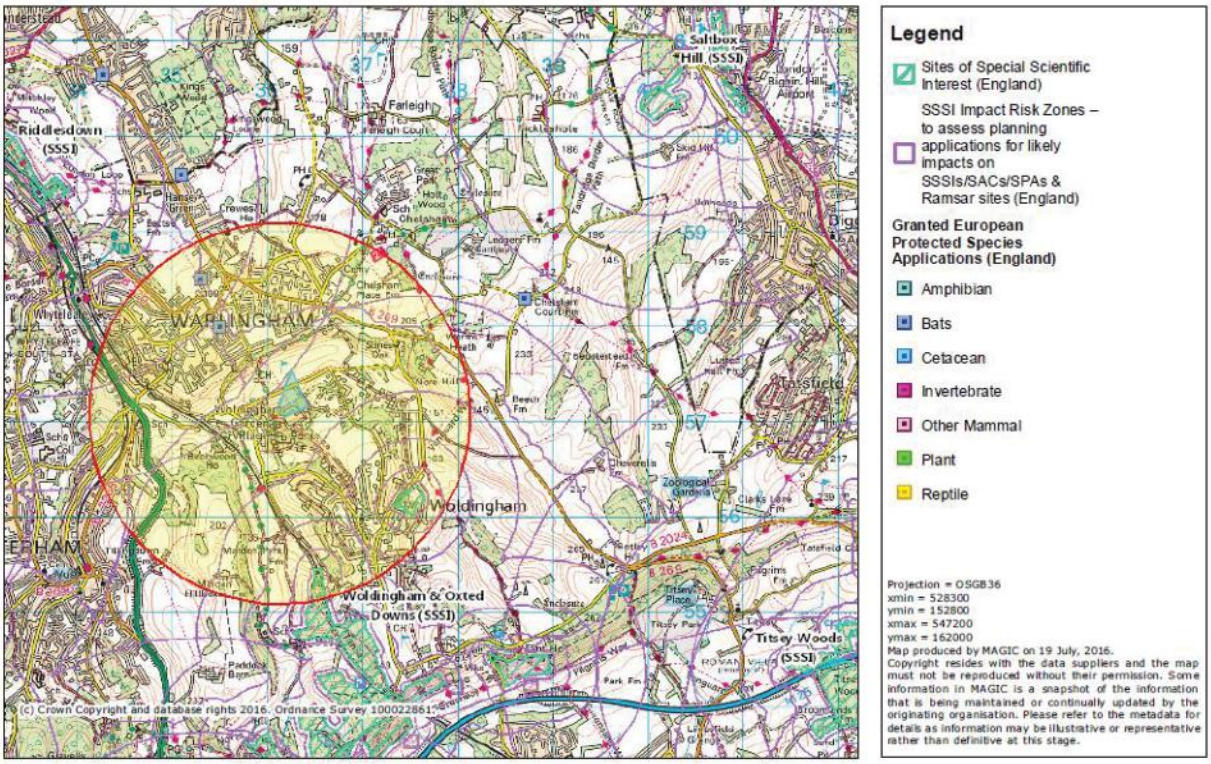

Figure 1: Magic search

Biological Records Data:

A 2km data search of existing records for protected species and nature reserves has been commissioned, below details the results and site context:

Biological records have been ordered from Surrey Biological Records Centre (SBRC, 2016), on arrival it will be added here.

Site Location and Surrounds:

The site is located in Surrey, Croydon and is surrounded by low density housing and grazed fields in the immediate local. Table 3 details the commuting, feeding and habitat features in a 1km radius of the site.

Table 3: Habitat features suitable for bat use

Feature	Description
Water course	There are no water-courses found in the area.
Water bodies	A small pond is located approx. 25m to the east and larger ponds are found to the east over a kilometer away.

Woodland	Woodland is located in small copses scattered in all directions with the closest being approx. 150m to the east.
Linear e.g. hedgerows	There are tree lined roads and hedging found in the wider landscape.
Pasture/arable/grassland	Grazed fields are located on the northern boundary and to the south approx. 1km from the site. Arable is located further to the south and east.
Other	A golf course is located to the north approx. 250m from the site, being a mix of habitats including grassland, copses and ponds.

3.2 Habitat, Building, Tree or Other Structure

The following section details the structures/habitat reference, description, evidence located and likelihood of species presence (see Figure 10 for site plan).

Habitats

Buildings

There are three buildings on site. A partially built house (B1) and two sheds (B2 and B3). B1 is a large detached house that has been built to the first floor only. It is completely open with no windows, doors or roof. It consists of a cavity wall and suspended floor. Externally the building is of plain brick to the first floor and then plain breeze block to the upper walls. Internally the building is a shell, with breeze block walls and all flooring showing. There is a basement type area.

B2 is a large portacabin type building with a flat roof and single internal area. B3 is a smaller shed building with tin roof and single internal area (see Figures 2 to 5).

Figure 2: Example of B1 partly built

Figure 3: Example of internal space B1

Figure 4: Example B2 portacabin

Figure 5: internal area of B2

Scattered trees

Along the northern and western boundary are scattered trees, these are a mix of oak ***Quercus robur***, ash ***Fraxinus excelsior***, beech ***Fagus sylvatica*** and leylandii ***Cupressus × leylandii*** (see Figure 6).

Figure 6: Example of trees

Mixed tall ruderal and bare-ground

The remainder of the site is a mixed habitat of tall ruderal vegetation and bare ground. Minor herbs and grasses are found dotted over the site these include greater willow-herb ***Epilobium hirsutum***, dock species ***Rumex spp***. and wood avens ***Geum urbanum***. Grasses include Yorkshire fog ***Holcus lanatus*** and ***poa spp***. Bramble ***Rubus fruticosus agg***. until recently dominated the plot, however this has been cleared and bare-ground now remains (see Figures 7 to 9).

Figure 7: Example of the general site

Figure 8: Example of the general site, cleared bramble

Figure 9: Example of the site

Target notes

Target Note	Description
T1	Bat potential
T2	Reptile potential

Species List

Annual Meadow-grass ***Poa annua***

Ash ***Fraxinus excelsior***

Beech ***Fagus sylvatica***

Bent ***Agrostis*** sp.

Birch ***Betula*** sp.

Black Horehound ***Ballota nigra***

Black Medick ***Medicago lupulina***

Blackthorn ***Prunus spinosa***

Bramble ***Rubus fruticosus agg.***

Bristly Oxtongue ***Picris echioides***

Buddleia ***Buddleja davidii***

Cat's-ear ***Hypochaeris*** sp.

Cleavers ***Galium aparine***

Cock's-foot ***Dactylis glomerata***

Colt's-foot ***Tussilago farfara***

Comfrey ***Symphytum*** sp.

Common Bent ***Agrostis capillaris***

Common Bird's-foot-trefoil ***Lotus corniculatus***

Common Chickweed ***Stellaria media***

Common Knapweed ***Centaurea nigra***

Common Mallow ***Malva sylvestris***

Common Sorrel ***Rumex acetosa subsp. acetosa***

Cow Parsley ***Anthriscus sylvestris***

Crane's-bill ***Geranium*** sp.

Creeping Buttercup ***Ranunculus repens***

Creeping Cinquefoil ***Potentilla reptans***

Creeping Thistle ***Cirsium arvense***

Daisy ***Bellis perennis***

Dandelion ***Taraxacum officinale***

Dock ***Rumex*** sp.

Evening-primrose ***Oenothera*** sp.

False Oat-grass ***Arrhenatherum elatius***

Garlic Mustard ***Alliaria petiolata***

Germander Speedwell ***Veronica chamaedrys***

Great Willowherb ***Epilobium hirsutum***

Ground-elder ***Aegopodium podagraria***

Ground-ivy ***Glechoma hederacea***

Groundsel ***Senecio vulgaris***

Hart's-tongue ***Phyllitis scolopendrium***

Hawkbit ***Leontodon*** (sp.)

Hedge Bindweed ***Calystegia sepium***

Hedge Mustard ***Sisymbrium officinale***

Hedge Woundwort ***Stachys sylvatica***

Herb-Robert ***Geranium robertianum***

Hogweed ***Heracleum sphondylium***

Holly ***Ilex aquifolium***

Ivy ***Hedera helix***

Ivy-leaved Speedwell ***Veronica hederifolia***

Japanese Knotweed ***Fallopia japonica***

Mouse-ear chickweed ***Cerastium vulgatum***

Mugwort ***Artemisia vulgaris***

Mullein ***Verbascum sp***.

Nettle ***Urtica dioica***

Oak ***Quercus*** sp.

Oxeye Daisy ***Leucanthemum vulgare***

Oxford Ragwort ***Senecio squalidus***

Perforate St John's-wort ***Hypericum perforatum***

Prickly Sow-thistle ***Sonchus asper***

Red Clover ***Trifolium pratense***

Red Dead-nettle ***Lamium purpureum***

Red Fescue ***Festuca rubra***

Redshank ***Persicaria maculosa***

Ribwort Plantain ***Plantago lanceolata***

Rosebay Willowherb ***Chamerion angustifolium***

Speedwell ***Veronica sp***.

Teasel ***Dipsacus fullonum***

Traveller's-joy ***Clematis vitalba***

Vetch ***Vicia*** sp.

Wall Barley ***Hordeum murinum***

White Clover ***Trifolium repens***

White Dead-nettle ***Lamium album***

Wood Avens ***Geum urbanum***

Yarrow ***Achillea millefolium***

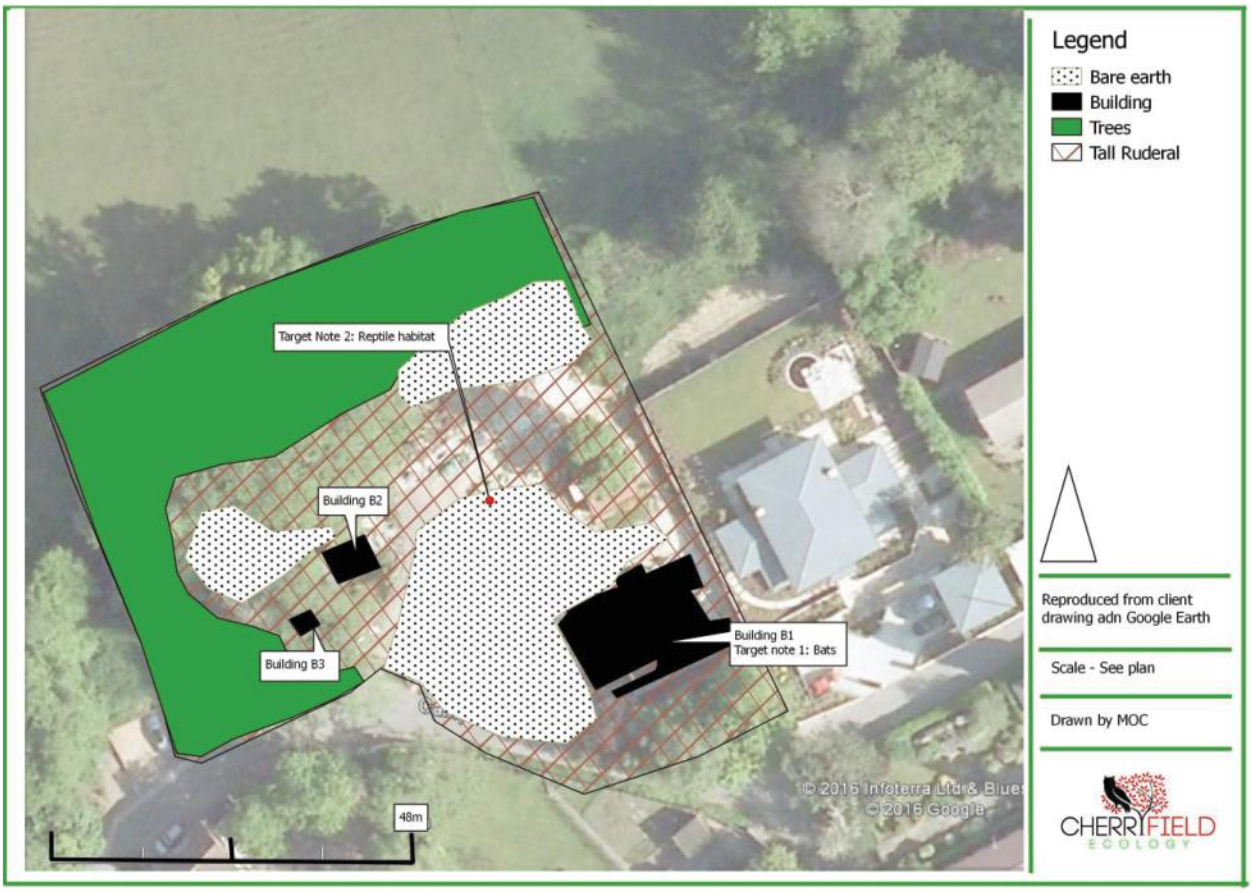

Figure 10: Site plan

Evidence or Likelihood of Species Presence

Bats

No bats found.

A small number of bat droppings (see Figure 11) were found in the partly built basement area of B1 and this area is suitable for bat hibernation, being of a stable temperature of approx. 4 to 7oC. The gaps, crevices and holes left by the partly built walls all have potential to support roosting bats.

Figure 11: Bat droppings, red circle indicates

Badgers

No badgers seen.

No setts, latrines, evidence (e.g. hairs) or runs were found on site.

Breeding Birds

No 'in-use' nests were found on site, however the trees, buildings and ruderal vegetation all have the potential to support breeding birds.

Amphibian

A pond is located in the neighbouring garden it is ornamental in nature, being surrounded by a patio (see Figure 12), however it was search for newts. There are currently smooth newt ***Lissotriton vulgaris*** efts present in the pond. Therefore it is likely that the site will have smooth newt utilizing the tall ruderal vegetation and vegetated areas that remain on the site.

Figure 12: Example of pond

Reptiles

No reptiles found.

The site is suitable for common reptiles to be present being a mix of bare-ground, tall ruderal, woodland edge and lightly vegetated areas. Anecdotal evidence (from the owner) suggests that at least slow worm ***Anguis fragilis*** have been found in the neighbouring garden and it is highly likely that they would be present on site.

Other mammals

No water-vole ***Arvicola amphibious***, otter ***Lutra lutra*** or dormouse ***Muscardinus avellanarius*** habitat was found on site.

None-native invasive

Japanese knotwood was located on site. The owner is already treating this via a specialist removal firm.

4.0 Conclusions, Discussion and Recommendations

The following section details the conclusions, discussion and recommendations in the context of the proposed works.

Conclusion, Discussion and Potential Impacts

The development will involve demolishing the partly built dwelling and removing the other buildings. The site is suitable for use by bats in B1, breeding bird and reptiles across the site.

Recommendations

Bats - As evidence and suitable roosting features have been found in B1 full roost characterization surveys will be required to establish species, populations and use of the structure. Three surveyors will be required to over the structure and two dusk and one dawn survey will be required between mid - May to Sept (these should start in August to make them valid this bat season).

Reptiles - As the site is suitable for common reptiles and there is anecdotal evidence to suggest that they are present full reptile surveys will be required to establish species and population. This involves placing out felts across the site and then checking them seven times in suitable weather (9oC to 18oC) between March to October.

Breeding Birds - Works should take place outside of the breeding season (March to August) to avoid 'in-use' nests. If not possible a check for 'in-use' nests will be required and if a nest is found a buffer of no less than 3m will be required around it until the nest is no longer in use.

5.0 References

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