

COYNE ENVIRONMENTAL LTD

Parkfields Farm

Hophurst Lane

Crawley Down

RH10 4LN



Ecological Assessment

October 2025

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INTRODUCTION

1.1 Squires Planning has instructed Coyne Environmental Ltd to carry out a Preliminary Ecological Appraisal (PEA) and Habitat Suitability Index (HSI) of Parkfields Farm, Hophurst Lane, Crawley Down, Grid Reference: TQ352383, Latitude, Longitude: [51.128711,-0.068519711](#). This is to establish the potential presence or absence of protected features of ecological significance. The HSI is being undertaken to assess the suitability of nearby ponds for Great crested newts (*Triturus cristatus*) (GCN). The ponds are approximately 200 meters away from the proposed development.

1.2 The client is planning to construct a new building on the land at Croydon Fireplaces. A planning application is being prepared for Mid Sussex District Council (MSDC). It is proposed to undertake a PEA and HSI of the site.

1.3 From the survey and analysis of the ecological assessment, it will be possible to review the proposals, to ascertain what measures are needed to achieve a satisfactory result for the environment. The PEA will enable the Local Planning Authority (LPA) to consider the impact of the proposal on any sensitive ecology. It can then discharge its legal obligations under the "Conservation of Habitats and Species Regulations (2018) and any Outline Mitigation and Compensation Strategy" if required.

1.4 Kenneth Coyne is a qualified Ecologist with over 40 years' experience in the environmental field. The PEA survey was undertaken on the 26th of September 2025 at approximately 10:30 am by Assistant Ecologist Dean Cornish 13°C, 50% cloud cover and no rain.

LOCATION

2.1 Crawley Down is a medium-sized town in West Sussex, population: 4,598 east of the larger town of Crawley and nearby London Gatwick Airport.

SITE

3.1 The surveyed site is business place: Croydon Fireplaces surrounded by horse paddocks, well-wooded gardens and mixed deciduous woodland.

AREA DESIGNATION

4.1 Management and protection of biodiversity within the UK planning system is set out through European and UK legislation. The Wildlife and Countryside Act (1981) (WCA) is the main protection for wildlife. There is also legislation for specific species, Protection of Badgers Act 1992, EU Habitats and Birds Strategy 2011-2020. Bats are protected under Schedule 5 of WCA. However, since 2007 the effective protection for bats now comes under Schedule 2 of the Conservation (Natural Habitats &c) Regulations 1994, which defines "European Protected Species " (EPS).

CONDITION

5.1 A full Phase 1 Habitat Survey was not deemed necessary as this is a site which would appear to have only limited natural features. So, this study is an Ecological Note Assessment as a Walkover Survey of the ecology of the site. However, if the survey identifies any wildlife of significance, measures will be taken as set out in the JNCC guidance Handbook of Phase 1 Habitat Surveys (2010) and CIEEM Guidelines (2017).

5.2 The surveyed site primarily consisted of Croydon Fireplaces UKHab v2.01 code: **u1b – Developed land; sealed surface**. Surrounding the business are horse paddocks code: **g4 – Modified grassland**.

ECOLOGICAL ASSESSMENT

Plants

6.4 The site was predominantly made up of Croydon Fireplaces buildings and Horse paddocks with lawn-like grassland with the entrance driveway bounded by Cherry (*Prunus ssp.*) and Maple (*Acer ssp.*) trees.

6.5 The edges of the paddocks were bounded by well-wooded gardens and woodland containing a large proportion of English Oak (*Quercus robur*), Sycamore (*Acer pseudoplatanus*) and Beech (*Fagus sylvatica*) along with an extensive Holly hedge (*Ilex aquifolium*) containing Bramble (*Rubus fruticosus*) understorey running along the eastern boundary of the site. North of the entrance is a line of four English Oaks within a short hedgerow which bisects two Horse paddocks.

6.6 Other plants noted in and around the paddocks included Meadow Buttercup (*Ranunculus acris*), White Clover (*Trifolium repens*) and Ragwort (*Jacobaea vulgaris*).

Mammals

6.7 Several mammal runs were observed in the northwest paddocks likely used by Deer to access nearby woodlands. Evidence of Mole (*Talpa europaea*) activity was noted in the paddocks.

Birds

6.8 The following birds were observed on or around the site: Woodpigeon (*Columba palumbus*), Magpie (*Pica pica*), Long-tailed Tit (*Aegithalos caudatus*), Blue Tit (*Cyanistes caeruleus*), Pied Wagtail (*Motacilla alba*), Robin (*Erithacus rubecula*), Jackdaw (*Coloeus monedula*), Great Spotted Woodpecker (*Dendrocopos major*), Nuthatch (*Sitta europaea*), Raven (*Corvus corax*), Carrion Crow (*Corvus corone*), Goldfinch (*Carduelis carduelis*) and Mistle Thrush (*Turdus viscivorus*). No nests were observed however the survey time is outside the main bird nesting season.

7.1 Any proposed clearance of existing vegetation should not be carried out in the **breeding season (March-August)**. If emergency operations are necessary, they must not be undertaken until an ecologist has undertaken a bird nest transit inspection. Any active nest that are found must be zoned off by protective fencing and can only be continue when fledglings have departed from the nest, confirmed by the appointed ecologist.

Reptiles/Amphibians

7.2 There were two ponds outside the site boundary in the garden of Beech House (see photographs) to the east which were assessed for their suitability for GCN. These ponds are separated by a narrow walkway with the South Pond slightly closer to Hophurst Lane and the North Pond closer to Beech House. It was not possible to undertake eDNA analysis because the proper times to perform this are 15th of April to the 30th of June when newts may be breeding, instead a HSI was performed.

7.3 This HSI has been undertaken in accordance with the Amphibian & Reptile Group of the United Kingdom, ARGUK Advice Note 5 (May 2010). The HSI is calculated by multiplying ten suitability factors and raising this to the power of 1/10 to achieve a score between 0 and 1. HSI is calculated as $HSI = (SI1 \times SI2 \times SI3 \times SI4 \times SI5 \times SI6 \times SI7 \times SI8 \times SI9 \times SI10)^{0.1}$. The HSI yielded a score of **0.56** for the South Pond and **0.57** for the slightly larger North Pond as detailed below. This means both fall within the **below average suitably** classification for GCN.

Table 1: HSI scoring for each of 10 factors for the **South Pond** used to determine the final HSI.

Suitability Factor	Factor Description	Result Description	Score
SI1	Geographic location	The pond is in West Sussex, Zone A.	1
SI2	Pond area	The pond area is approximately 200 m ² according to QGIS with OS OpenData Street View Basemap.	0.4
SI3	Permanence	Sometimes dries.	0.5
SI4	Water quality	Poor, no aquatic invertebrates caught (three attempts), a single waterboatman was seen.	0.33
SI5	Shade	At least 80% shading from roadside conifers and garden trees.	0.6
SI6	Waterfowl	Two Mallards were flushed from the pond on the visit, Minor Impact.	0.67
SI7	Fish	No fish were netted (three attempts) but may be present.	0.67
SI8	Pond count	There are three ponds around, one directly beside and two to the north of Hophurst Lane. This gives a ponds per km of approximately $1 (3/\pi) \sim 1$	0.65
SI9	Terrestrial habitat	Moderate habitat quality around the pond but nearby road may limit access.	0.67
SI10	Macrophytes	Cover limited to a very small patch of water lilies approximately 10%.	0.4

Table 2: HSI scoring for each of 10 factors for the **North Pond** used to determine the final HSI.

Suitability Factor	Factor Description	Result Description	Score
SI1	Geographic location	The pond is in West Sussex, Zone A.	1
SI2	Pond area	The pond area is approximately 250 m ² according to QGIS with OS OpenData Street View.	0.45
SI3	Permanence	Sometimes dries.	0.5
SI4	Water quality	Poor, no aquatic invertebrates caught (three attempts), a single waterboatman was seen.	0.33
SI5	Shade	At least 80% shading from roadside conifers and garden trees.	0.6
SI6	Waterfowl	Two Mallards were flushed from the pond on the visit, Minor Impact.	0.67
SI7	Fish	No fish were netted (three attempts) but may be present.	0.67
SI8	Pond count	There are three ponds around, one directly beside and two to the north of Hophurst Lane. This gives a ponds per km of approximately 1 (3/pi) ~1	0.65
SI9	Terrestrial habitat	Moderate habitat quality around the pond but nearby road may limit access.	0.67
SI10	Macrophytes	Cover limited to a very small patch of water lilies approximately 10%.	0.4

Table 3: HSI scores categorisation.

HSI	Pond Suitability
<0.5	poor
0.5-0.59	below average
0.6-0.69	average
0.7-0.79	good
>0.8	excellent

7.4 It is concluded that this proposal will have **no detrimental effect on GCN**.

Insects

7.5 A single water boatman (*Corixidae ssp.*) was observed on one of the ponds.



ECOLOGICAL ANALYSIS

8.1 The ecological assessment has shown that the site has some environmental value. Where possible, as many of the trees and native hedges should be retained. Care should also be exercised when removing any waste piles which may harbour Hedgehogs (*Erinaceus europaeus*) (Priority Species).

8.2 Given the presence of nearby woodland, light levels should be minimised on the new building in the interest of protecting any foraging areas for bats which may be present in the area.

BIODIVERSITY NET GAIN

9.1 The Environment Act 2021 has a mandatory require for Biodiversity Net Gain (BNG) on developments of a minimum of 10%. Within this scheme it is proposed that the BNG should be undertaken as part of this proposal. A separate BNG Metric will be undertaken from the assessment in this Report. The results from this exercise will provide suitable mitigation or enhancement required to meet the Statutory Net Gain in the Environment Act 2021.

CONCLUSION

10.1 Squires Planning has instructed Coyne Environmental Ltd to carry out a PEA and HSI of Parkfields Farm, Hophurst Lane, Crawley Down to establish the potential presence or absence of protected ecology of significance. This is in preparation of a planning application to MSDC.

10.2 The site survey has taken place. The application site is not in an area of high risk for sensitive species or habitats.

10.3 I conclude that this survey alone satisfies the requirement for environmental assessments and that the proposal can be submitted to MSDC.

REFERENCES

Photograph Gallery (Page 9)

Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). The Bat Conservation Trust, London. ISBN-97801-7395126-0-6

Defra MAGIC Map <https://magic.defra.gov.uk/MagicMap.html>

Environment Act 2021 <https://www.legislation.gov.uk/ukpga/2021/30/contents>

Wildlife & Countryside Act 1981 <https://www.legislation.gov.uk/ukpga/1981/69>

Great Crested Newt Habitat Suitability Index (May 2010) <https://www.arguk.org/info-advice/advice-notes/9-great-crested-newt-habitat-suitability-index-arg-advice-note-5/file>

PHOTOGRAPH GALLERY

