

# **COYNE ENVIRONMENTAL LTD.**

**Land North of Ethlinden  
Hophurst Hill  
Crawley Down  
RH10 4LP**



## **PRELIMINARY ECOLOGICAL ASSESSMENT November 2024**

**KENNETH COYNE  
Dip LA, DA, Dip TP, Cert Ecol. & Cons CMLI. AIEEM  
Coyne Environmental Ltd.  
5 Philosophers Gate  
Ashwell  
Herts  
SG7 5DL  
01462 743723  
Company No 15416453**

## **Table of Contents:**

|                                       |    |
|---------------------------------------|----|
| INTRODUCTION .....                    | 3  |
| LOCATION .....                        | 3  |
| AREA DESIGNATIONS .....               | 4  |
| SITE: .....                           | 5  |
| CONDITION .....                       | 6  |
| HABITAT SUITABILITY INDEX (HSI) ..... | 7  |
| ECOLOGICAL ASSESSMENT .....           | 8  |
| BIODIVERSITY NET GAIN (BNG) .....     | 10 |
| CONCLUSION .....                      | 10 |

## INTRODUCTION

Coyne Environmental Ltd. has been instructed by Squire Planning to carry out an ecological study of the land north of Ethlinden, Hophurst Hill, Crawley Down, RH10 4LP, to establish the potential presence or absence of protected ecological features of significance. It is proposed to undertake a Preliminary Ecological Appraisal (PEA). A Biodiversity Net Gain (BNG) in accordance with the Environment Act 2021, will also be conducted. These are both in preparation of the submission of a planning application to the Mid Sussex District Council (MSDC).



*Figure 1. An image from Google satellite view showing the site boundary, in red, and the ownership boundary, in blue.*

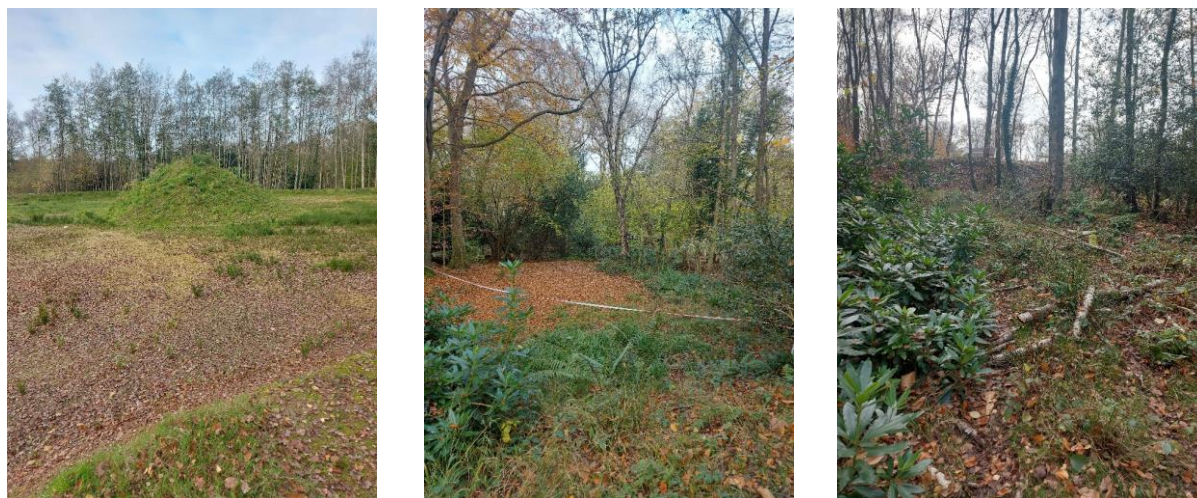
The completed PEA and BNG will enable the local planning authority (LPA) to consider the impact of the proposal on wildlife. The authority can then discharge its legal obligations under the 'Conservation of Habitats and Species Regulations' (2018) and any 'Outline Mitigation and Compensation Strategy' if required.

I am a qualified Ecologist, with over 35 years' experience in the environmental field. This includes being a license bat worker (Bat License 2015-15943-CLS-CLS). The PEA Survey was carried out on the 15<sup>th</sup> of November 2024 by Assistant Ecologist Luke Davenport. This was conducted in the daytime, good weather (9C), no rain, calm (1 Beaufort), cloudy (90%) conditions.

## LOCATION

The site is located at Grid Reference TQ 35651 38942, to the north end of Hophurst Hill, a rural road. It is a relatively large plot with a detached house to the south and a

woodland to the north, with a fishing pond to the northwest. The proposal is to turn a circular area within the site into a horse paddock. The site is surrounded by predominantly birch woodland. the proposed horse paddock is currently a sparsely vegetated or bare ground area. This is due to groundwork having been previously done on site. Surrounding the paddock is a dirt bund wall, roughly one meter tall and one meter wide. Within the centre of the paddock is a large dirt mound, where the topsoil from previous groundwork has been amassed. The mound has some emergent species growing atop it, including, ragwort, fleabane, grass and thistles to name a few.



*Figure 2. Three photos showing the mound and wooded area of the site. Taken by Luke Davenport on the 15th of November 2024.*

The nearest Wildlife Trust site is Hedgecourt Nature Reserve located roughly 1.5km north of the site, Hedgecourt is also recognised as a Site of Special Scientific Interest (SSSI). The next closest Wildlife Trust site is Blindly Heath Nature Reserve >5km further north. No other Wildlife Trust sites are nearby. Other Nature Reserves (NRs) nearby include the Gullege Millennium Wood and Pond roughly 1.2km southeast. No other NRs, SSSIs or RAMSAR sites are present within 5km of the site. Considering the rural nature of the surrounding area, and the recognised reserves nearby, Coyne Environmental Ltd. concludes that the surrounding area is one of moderate ecological value.

## **AREA DESIGNATIONS**

Management and protection of ecology and biodiversity within the UK planning system is set out through European and UK legislation. The Wildlife and Countryside Act (1981) is the main protection for wildlife. There is also legislation for specific species, Protection of Badgers Act 1992, EU Habitats and Birds Directive and more general guidance, EU Biodiversity Strategy 2011-2020. This study and report have also considered BS 42020 (2013) Biodiversity -Code of Practice for Planning and Development.

The Mid Sussex District Council (MSDC) adopted the “Mid Sussex District Plan 2014 – 2031”, in 2018. This was then reviewed in 2021 and a new plan for 2021 – 2039 was created. The plan adopts mitigations and adaptations into local planning to ensure that developments use methods to increase biodiversity. Green infrastructure, renewable

energy and Biodiversity Net Gain (BNG) are some examples of ways discussed and incorporated into this plan. Overall, the plan is aimed at ensuring the environment and wildlife of the county is adequately protected.

## **SITE:**

A full Phase 1 Habitat Survey was not deemed necessary due to the lack of ecological features on site, therefore, only a Walkover Ecological Survey (WES) was deemed necessary for this PEA. However, if the survey identifies any wildlife of significance, measures will be taken as set out in the JNCC guidance Handbook for Phase 1 Habitat Surveys (2010) and CIEEM Guidelines (2017).

The habitats were recorded on site as follows:

### **Sparsely vegetated Urban Land – Bare Ground (UKHab code; u1f – 510)**

Groundwork has occurred within the site, causing most of the site to be classified as “sparsely vegetated – u1f” or “bare ground – 510”. In the centre of the site is a dirt mound with emergent species present, for example, horseweed (*Erigeron canadensis*), thistle (*Cirsium Spp.*), feverfew (*Tanacetum parthenium*) and lawn daisy (*Bellis perennis*) to name a few. A dirt bund wall is present in places surrounding the area, only a few emergent species are seen with the majority being bent grass (*Agrostis Spp.*) and rough meadow grasses (*Poa trivialis*).

The north half of the site is classified as Sparsely vegetated, with bent grass, grass of parnassus (*Parnassia palustris*) and cordgrass (*Spartina Spp.*) present. The clay soils trap some rainfall, causing aquatic species such as water starwort (*Callitriche Spp.*) to be present in patches. To the south side of the site, very few grass shoots can be seen, with most of the area being classified as “bare ground – 510” under the UKHab classification system.

### **Broadleaved and Mixed Woodland (UKHab code; w1)**

Surrounding the site is a birch woodland, classified as a “Broadleaved and mixed woodland – w1”, silver birch (*Betula pendula*) is the predominant species. Only a few other species can be found including, English oak (*Quercus robur*), common holly (*Ilex aquifolium*) and a couple of rhododendrons (*Rhododendron Spp.*) to name a few.

### **Other Standing Water (UKHab code; r1g)**

To the northwest of the site is a fishing pond. Roughly 2000m<sup>2</sup> the pond is connected to the shared right of way to the north of the site. There are a few elongated islands in the middle of the pond. The water quality is moderate, with murky waters, possibly due to waterfowl and fish using the pond.

## CONDITION

The site is a large relatively circular area, to the south of a large residential building. The proposals are to turn the circular area within the site into a horse paddock. Groundwork has already occurred on the proposed paddock area, with a dirt bund wall surrounding and a large dirt mound in the centre. Due to this most of the proposed site is bare ground, or sparsely vegetated, with only a few species observed. The south side of the mound is bare ground, while the north side is sparsely vegetated. Due to the south side having some water present, some marsh species can be seen. Species seen include, bent grass (*Agrostis Spp.*), grass of parnassus (*Parnassia palustris*), water starworts (*Callitriche Spp.*), cordgrass (*Spartina Spp.*). Upon the dirt bund wall which encircles the area, bent grass, rough meadow grass (*Poa trivialis*) common bramble (*Rubus fruticosus*), curly dock (*Rumex crispus*), butterfly bush (*Buddleja davidii*), purple foxglove (*Digitalis purpurea*) and some moss (*Bryophyta Spp.*), was observed.



Figure 3. Three photos showing the fishing pond and more of the site. Taken by Luke Davenport on the 15th of November 2024.

The mound in the centre has a few more emergent species present. Species seen include, horseweed (*Erigeron canadensis*), ragwort (*Jacobaea vulgaris*), poison hemlock (*Conium Spp.*), fernleaf biscuitroot (*Lomatium dissectum*), autumn hawkbit (*Leontodon hispidus*), clover (*Trifolium Spp.*), bent grass, creeping buttercup (*Ranunculus repens*), oxeye daisy (*Leucanthemum vulgare*), peppergrasses (*Lepidium Spp.*), thistle (*Cirsium Spp.*), feverfew (*Tanacetum parthenium*) and lawn daisy (*Bellis perennis*).

There should be minimal impact on vegetation and trees within the surrounding woodland. Species seen within the wooded area include, silver birch (*Betula pendula*), English oak (*Quercus robur*), rhododendron (*Rhododendron Spp.*), common bramble, stinging nettle (*Urtica dioica*), common holly (*Ilex aquifolium*), bracken (*Pteridium Spp.*), common ivy (*Hedera helix*), and some moss (*Bryophyta Spp.*). Other species seen and heard during the survey include four bird species, European robin (*Erithacus rubecula*), Eurasian bluetit (*Cyanistes caeruleus*), wood pigeon (*Columba palumbus*) and Eurasian wren (*Troglodytes troglodytes*). Numerous deer tracks were seen

throughout the area, suggesting a small herd of deer (*Cervidae Spp.*) commute through the site.

## HABITAT SUITABILITY INDEX (HSI)

A fishing lake is present just northwest of the site and a Habitat Suitability Index (HSI) has been undertaken. Great Crested Newts (GCN) are European Protected Species (EPS) under the Conservation of Habitats and Species Regulations 2017 (as amended) and by UK law in the Wildlife and Countryside Act 1981. As such, the possibility of GCN within the lake was assessed using the GCN Habitat Suitability Index (HSI). A Habitat Suitability Index (HSI) assesses the likely impact of a project on such ponds and has ten factors to consider, to achieve an HSI Suitability Score.

The Pond on site was assessed as follows:

| Factor     | Assessment            | Note                   | Review                              | SI score count      |
|------------|-----------------------|------------------------|-------------------------------------|---------------------|
| 1          | Geographical location | Central England        | Area A                              | 1.0                 |
| 2          | Pond area             | Omitted due to size    | Pond is ~2000m <sup>2</sup>         | N/A                 |
| 3          | Permeance             | Never dries out        | Water in at present                 | 0.9                 |
| 4          | Water quality         | Poor                   | Low invertebrate diversity          | 0.33                |
| 5          | Shade                 | Shaded Areas           | Mostly Shaded (60-70%)              | 0.95                |
| 6          | Waterfowl             | Minor                  | none present at time of survey      | 0.67                |
| 7          | Fish                  | Minor - Major          | Waterbody is used as a fishing lake | 0.33                |
| 8          | Pond density          | Within 1 km            | One                                 | 0.4                 |
| 9          | Territorial habitats  | Moderate - Good        | Woodland adjacent                   | 1                   |
| 10         | Macrophytes           | Minimal due to fishing | ~10-20% Macrophyte cover            | 0.5                 |
| <b>HSI</b> |                       |                        | <b>Preliminary count</b>            | <b>0.6144 (4dp)</b> |

To obtain the HSI Score the Factors 1-10 (excluding factor 2) are multiplied together and then the base number is multiplied to the power of 1/9 to obtain the Suitability Index Score of **0.6144** (to 4 decimal places). The result is placed into the table below which indicates that the pond is **average** suitability as a GCN habitat.

| HSI              | Pond Suitability |
|------------------|------------------|
| < 0.5            | poor             |
| 0.5-0.59         | below average    |
| <b>0.6 -0.69</b> | <b>average</b>   |
| ➤ 0.8            | excellent        |

However, it is important to note that while the pond has average suitability for GCN, it is used for fishing. Fishing activities diminish the suitability of the lake and suggest that higher densities of fish are present within the lake. It is also important to note that,

while waterfowl weren't present in the lake at the time of the survey, the size and location of the lake make it likely that waterfowl will use the lake from time to time. Some waterfowl prey on GCN, as well as disturb sediments, lower the water quality, and remove aquatic vegetation. Considering these factors, Coyne Environmental Ltd. conclude that the proposals will have minimal impact on the suitability for GCN; thus, works can continue without any further surveys.

## ECOLOGICAL ASSESSMENT

The proposals are to build a horse paddock, and while groundwork has already occurred, any other potential future impacts on any ecology of significance must be assessed. The main concern for wildlife is bats (European Protected Species) and birds within the trees surrounding the site.



*Figure 4. Three photos showing deer tracks, a tree feature and more of the site, respectively. Taken by Luke Davenport on the 15th of November 2024.*

**Bats.** The main opportunity for bats is for potential roosts within the woodland within the site and surrounding area. No buildings are on site and therefore a Preliminary Roost Assessment (PRA) wasn't required. The vegetation and trees within the site were inspected, using binoculars, for any holes (woodpecker), fissures etc. **No evidence of urine, signs of faeces, entry scratches etc. were found.** Some trees had common ivy; this can be used as roosts for bats. It's important to note that the proposals will have minimal impact on the woodland, with no trees requiring removal. Some features such as a tear out were observed, see Fig.4. however, no signs of bats (EPS) were observed.

If the proposals change and the removal of any trees with a high potential for bats is necessary, these will require inspection beforehand. This includes mature trees with multiple features, such as tear outs, woodpecker holes, butt rot and heavy ivy growth for example. If any bats (EPS) or signs of bats are found, a suitably qualified ecologist should be contacted. Coyne Environmental Ltd. therefore concludes that in accordance with the Conservation of Habitats and Species Regulations' (2018) this site has a **Low - moderate potential as a bat roost**, and no further bat (EPS) surveys are required.

**Birds.** Birds have potential to nest within the trees on site. On inspection, using binoculars, **no nests or evidence of nest building was found**. Some songbirds such as European robin (*Erithacus rubecula*), Eurasian blue tit (*Cyanistes caeruleus*), wood pigeon (*Columba palumbus*) and Eurasian wren (*Troglodytes troglodytes*) were heard and seen. The proposals aren't likely to affect any bird species. However, it's possible birds may nest nearby. Therefore, if the removal of any trees or sizeable scrub is necessary, these should have an inspection beforehand and be done under supervision, if done within the breeding season (March – August). Using the British Trust for Ornithology (BTO) guidelines this site has **a moderate Avifauna value**. However, at present, no trees are marked for removal, thus, the proposals should have minimal impact on any bird species.

**GCN.** There is a fishing pond just northwest of the site and a Habitat Suitability Index (HSI) for Great Crested Newts (GCN) was undertaken. The results showed that the pond had an average suitability for GCN. However, due to the size of the waterbody and the potential for fish and waterfowl to use the pond, GCN are unlikely to be present. Inspection under stones, debris and other potential refugia showed no signs of frogs, toads or other species of note. Coyne Environmental Ltd. therefore concludes that this site has a **low probability for GCN**. It is also important to note that the proposals will have minimal impact on the suitability for GCN.

**Mammals.** Due to the site being surrounded by woodland, badgers have the potential to dig setts here. Badgers tend to prefer the edges of woodland, scrub or thick vegetation to dig setts. Pairing this with the road situated to the east and the house situated to the south, it is unlikely badgers would typically dig setts on site. Coyne Environmental Ltd. therefore determines the site to be one of **low value for badgers**. Please note that upon inspection, no trails, passages (footprints) latrine areas (droppings), discarded meals etc. were found.

Throughout the area, extensive deer tracks were observed, suggesting a small herd commute through the site. Though, deer aren't classified as a European Protected Species, with extensive attractive habitat to the north and west. Thus, the proposals should have minimal impact on any mammals of significance. No evidence of footprints or droppings for other mammals such as rabbits or red foxes were observed. While foxes may pass through the site, it's unlikely any foraging and/or den making will take place. No burrows or signs of burrowing were observed. Furthermore, no signs of mole activity were found throughout the area.

**Reptiles.** The main opportunity for reptiles is within the wider surrounding area and not within the site due to the more attractive vegetation such as larger areas of longer grass or increased debris, outside the site. It would appear to be a site of **low - negative value for reptiles** like grass snakes and common lizards. Inspections under possible refugia (stones, wood etc.) was carried out but nothing was observed. Coyne Environmental Ltd. therefore concludes that this site has a **low probability for reptiles** and therefore no further surveys are required.

## **BIODIVERSITY NET GAIN (BNG)**

The Environment Act 2021 has a mandatory require for Biodiversity Net Gain (BNG) on most new development, of a minimum of 10%. Within this scheme it is proposed that the BNG will be undertaken as part of this study and included in the planning application. Suitable mitigation or enhancement required to meet the Statutory Net Gain could then be incorporated into an ecological and landscape design proposals.

This can include native species of planting, selected wild flora mixes and habitat creation in the form of bat and bird boxes and other features for habitat creation. Areas of wildflower meadow and rain gardens (damp areas) could form part of the proposals, along with SuDS design for drainage areas.

## **CONCLUSION**

Coyne Environmental Ltd. has been instructed to carry out an ecological study of the land north of Ethlinden, Hophurst Hill, Crawley Down, RH10 4LP, and a PEA survey has been carried out. There are few ecological features on site, with no signs of European Protected Species (EPS). The survey and subsequent desk top study of the site indicates that this is not in an area of high risk for any specific species or sensitive habitats and has no habitats of importance or ecology of significance. Coyne Environmental Ltd. have determined that the site has no evidence of bats (EPS), GCN, badgers or reptiles. While certain species may commute through the site, it is unlikely any roosting, nesting or den making will take place. Consequently, it is considered that no additional surveys for these species are required.

Therefore, in my professional opinion I assess that the proposed new application will have minimal impact on the overall ecology of the area. I conclude that no further ecological or environmental studies are necessary to satisfy the requirement for ecological and biodiversity enhancements. On this basis the proposal can be determined by Mid Sussex District Council.

## **REFERENCES**

Habitat Map

Wildlife & Countryside Act (1981)

UKHab Ltd. Vers. 2.0 (2018-2023)

The Wildlife trusts

Mid Sussex District Council



Key:

Ethlinden, Hophurst hill

Proposal Boundary

Ownership Boundary

Shared Right of Way

Birch Woodland - w1

Dirt Bund - u1f

Sparsely Vegetated - u1f

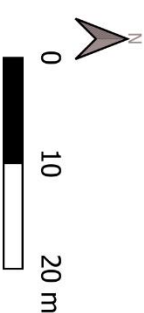
Slope - u1f-510

Mound - u1f

Bare Ground - u1f-510

Tree

Fishing Lake - r1g



Coyne Environmental Ltd.  
5 Philosophers Gate  
Ashwell, SG7 5DL

Land North of Ethlinden

Habitat Plan

24194

15/11/2024

| TITLE                   | SURVEY       |
|-------------------------|--------------|
| Land North of Ethlinden | Habitat Plan |
| 24194                   | PROJECT      |
| 15/11/2024              | DATE         |
| REVISION                |              |