



Skilled Ecology Consultancy Ltd.

The Cherries, Ashen Road,

Clare, Suffolk, CO10 8LG

T: 01787 277912

E: [roger@skilledecology.co.uk](mailto:roger@skilledecology.co.uk)

W: [www.skilledecology.co.uk](http://www.skilledecology.co.uk)

# **Ecology Condition Report for Development at Brook Hall Farm Buildings, Church Road, Crowfield, IP6 9TG.**

**(Conditions 4 & 5 Application: DC/22/00958)**

On behalf of:

**Joy Cox**

**June 2023**

Skilled Ecology Consultancy Ltd.

Registered company in England no: 7188811

Registered Office: Alpha 6, Masterlord Office Village, West Road, Ransomes Europark, Ipswich, Suffolk, IP3 9SX.

## Contents

<b>0</b>	<b>SUMMARY .....</b>	<b>3</b>
<b>1</b>	<b>INTRODUCTION .....</b>	<b>4</b>
1.1	Background .....	4
<b>2</b>	<b>METHODOLOGY .....</b>	<b>4</b>
2.1	Desk Study .....	4
<b>3</b>	<b>RESULTS.....</b>	<b>4</b>
3.1	Site Description & Location.....	4
<b>4</b>	<b>RECOMMENDATIONS .....</b>	<b>4</b>
4.1	Key Recommendations.....	4
<b>5</b>	<b>CONCLUSION .....</b>	<b>7</b>
<b>6</b>	<b>REFERENCES .....</b>	<b>7</b>
<b>7</b>	<b>APPENDICES .....</b>	<b>8</b>
7.1	Appendix 1: Proposed Plan.....	8
7.2	Appendix 2: Habitat Boxes/Bricks .....	10

## Figures & Tables

Figure 1: Recommended locations for habitat enhancements. ....	8
Figure 2: Recommended locations for lighting & hedgehog gaps. ....	9
Photograph 1: Schwegler Kestrel Box. ....	10
Photograph 2: Vivara Pro Sparrow Terrace by Bird Brick House.....	10
Photograph 3: Beaumaris Bat Box. ....	10
Photograph 4: Woodstone Swift Brick.....	11
Photograph 5: Canon PIR Wall Light.....	11
Photograph 6: Example Hedgehog Gap.....	11

## 0 SUMMARY

- 0.1 Skilled Ecology Consultancy Ltd. was commissioned by Joy Cox to produce a Biodiversity Enhancement Strategy (BES) & Wildlife Friendly Lighting Design in pursuit of ecology condition discharge for development at Brook Hall Farm Buildings, Church Road, Crowfield, IP6 9TG (Conditions 4 & 5 Application: DC/22/00958).
- 0.2 The proposed development is for: Erection of 3no. detached dwellings and detached garages (following demolition of existing buildings).
- 0.3 This report has been produced by experienced ecologist Roger Spring BSc MCIEEM (licensed by Natural England to survey for bats and great crested newts *Triturus cristatus*). The report is informed by an Update Preliminary Ecological Appraisal, September, 2022 by Skilled Ecology Consultancy Ltd., as well as ordnance survey maps, aerial photographs and development plans.
- 0.4 The report includes:
- Wildlife friendly lighting.
  - Installation of new bat boxes & bird boxes/bricks.
  - Access for hedgehogs.
  - Wildflower lawn creation.
  - Hedgerow creation.
  - Other native tree planting.
- 0.5 The above would ensure the minimisation of external lighting and appropriate and proportionate enhancement of the site by increasing hedgerow habitat along with bird nesting and bat roosting habitat. With this report followed accordingly, the site would be enhanced to provide a net gain in accordance with national planning policy and the appropriate condition could be discharged.

## **1 INTRODUCTION**

### **1.1 Background**

- 1.1.1 Skilled Ecology Consultancy Ltd. was commissioned by Joy Cox to produce a Biodiversity Enhancement Strategy (BES) & Wildlife Friendly Lighting Design in pursuit of ecology condition discharge for development at Brook Hall Farm Buildings, Church Road, Crowfield, IP6 9TG (Conditions 4 & 5 Application: DC/22/00958).
- 1.1.2 The proposed development is for: Erection of 3no. detached dwellings and detached garages (following demolition of existing buildings).

## **2 METHODOLOGY**

### **2.1 Desk Study**

- 2.1.1 This report has been produced by experienced ecologist Roger Spring BSc MCIEEM (licensed by Natural England to survey for bats and great crested newts *Triturus cristatus*). The report is informed by an Update Preliminary Ecological Appraisal, September, 2022 by Skilled Ecology Consultancy Ltd., as well as ordnance survey maps, aerial photographs and development plans.

## **3 RESULTS**

### **3.1 Site Description & Location**

- 3.1.1 The proposed site is approximately 0.18ha in area and found to include; three modern, corrugated sheeting, agricultural buildings used for storage, as well as a grain silo, concrete and gravel hardstanding, a small area of improved rough grassland boundary trees and shrubs. It is understood that most trees and shrubs will be retained within the proposed design.
- 3.1.2 The site is positioned in a rural location with Brook Hall farmhouse west, The Barn south west and another residential property east of the site, as well as associated gardens. The broader landscape is dominated by arable fields. Ponds are present close to the site.

## **4 RECOMMENDATIONS**

### **4.1 Key Recommendations**

*Sensitive Lighting*

- 4.1.1 As an overview to the potential impacts of lighting on bats, it is now well documented that all UK bat species are sensitive to light and are affected in different ways by light. The types of light most likely to impact negatively upon bats are high wattage white light with an ultraviolet spectrum. The impacts to bats are reduced when the wattage is reduced and ultraviolet light is removed. In addition, bats are less sensitive to red light than white light. Lighting impacts on bats are most detrimental close to roosts which can be abandoned, as well as along foraging routes, such as river corridors, hedgerows and woodland edges and along commuting routes where bats can be forced to use suboptimal habitat for commuting because of lighting and in worse cases can be prevented from reaching foraging grounds altogether by lighting. It is also recognised that some bat species are more sensitive than others to increased lighting levels (Bats & Lighting BCT, 2018).
- 4.1.2 Therefore, to minimise impacts to foraging and commuting bats and other nocturnal wildlife likely to use the boundary habitats, all external lighting will include only low wattage (>3000k), warm white, Light Emitting Diode (LED) and be directed downward. The lighting will be set on sensors to reduce the length of time the site is illuminated.
- 4.1.3 The lighting includes wall lights only. See Figure 2 in Appendix 1 for lighting locations and Photographs in Appendix 2 for lighting types.

#### *Creation of New Habitats*

- 4.1.4 The following will be undertaken to create new habitats for foraging, nesting and roosting by protected, priority and declining species. The bat and bird boxes are integrated to be present in perpetuity, including:
- 2 x Vivara Pro Sparrow terrace will be installed into the walls of the new buildings. The boxes will be installed just below the roofline facing a northerly direction. See Figure 1 in Appendix 1 for location and photographs in Appendix 2.
  - 3 x Beaumaris Bat Box will be installed into the walls of the new buildings. The boxes will be installed just below the roofline facing a southerly direction. See Figure 1 in Appendix 1 for locations and photographs in Appendix 2.
  - 2 x Woodstone Swift Bricks will be installed into the walls of new buildings. The boxes will be installed together to create a small colony and be positioned just below the roofline facing a northerly direction. See Figure 1 in Appendix 1 for locations and photographs in Appendix 2.
  - 1 x Schwegler Kestrel Bird Box will be installed on a retained tree on the site (set above 4m) facing a northerly direction over adjacent fields. See Figure 1 in Appendix 1 for locations and photographs in Appendix 2.

- Access provision for hedgehogs into new gardens, through the creation of gaps at the base of any new boundary fencing. The gaps will be at least 13cm in diameter. See Figure 2 in Appendix 1 for locations.
- All proposed newly created lawn areas will be sown as a wildflower meadow using the seed mixture EM1 by Emorsgate Seeds ([www.wildseed.co.uk](http://www.wildseed.co.uk)).
- New hedgerows will be planted on the site boundary. The new hedgerows will be planted in double staggered rows, preferably 5 whips per linear metre, with spiral tree guards and include: 60% Hawthorn (*Crataegus monogyna*) 20% Field maple (*Acer campestre*), 10% Hazel (*Corylus Avellana*), 5% wild cherry (*Prunus avium*), 5% guelder rose (*Viburnum opulus*).
- New small trees are proposed for the development including: hawthorn (*Crataegus monogyna*), apple (*Malus domestica*) and wild cherry (*Prunus avium*). These will be planted as per the site layout in Appendix 1.

#### *Management of New Habitats*

4.1.5 To maximise the long-term ecological value of the newly created habitats, the following management will occur:

- The bat and bird boxes/bricks do not require specific management and are durable products with a long lifespan. However, the boxes should be annually checked in winter and if lost or damaged within the first five years they should be replaced on a one-for-one basis. During the annual check, if cleaning of bird boxes/bricks is required this should also be undertaken.
- Wildflower seeding will be following horticultural best practise in the first spring or autumn following completion of the build. Watering will be required in dry periods, though no soil improvers, herbicides or pesticides are required.
- The new hedgerows and trees will be watered in dry periods, though no soil improvers, herbicides or pesticides are required. If trees/shrubs die within the first five years, they will be replaced on a one-for-one basis. Following planting, the hedgerows will be allowed to grow unabated for three years and in the fourth year during winter the hedgerows will be trimmed to form a box shape to encourage thickening to increase suitability for nesting birds. All future pruning will be undertaken in winter.

4.1.6 Jo Cox or the appointed developer is responsible for following and implementing this report.

## **5 CONCLUSION**

- 5.1 The report includes new habitats for locally recorded protected, priority and declining wildlife such as; birds hedgehogs and bats in accordance with Condition 4. The report also includes wildlife sensitive lighting design in accordance with Condition 5.
- 5.2 By following this report, the site would be proportionately enhanced for local wildlife to provide a net gain and wildlife sensitive lighting implemented in accordance with the appropriate planning condition could be discharged.

## **6 REFERENCES**

Bat Conservation Trust (2016) *Bat Surveys- Good Practise Guidelines, 3<sup>rd</sup> Edition*. Bat Conservation Trust, London.

Ministry of Housing, Communities and Local Government (2021). National Planning Policy Framework, 2021. Fry Building, London.

Skilled Ecology Consultancy Ltd. (2022). *Update Preliminary Ecological Appraisal*. Skilled Ecology Consultancy Ltd.

Websites: NHBS (2023). [www.NHBS.co.uk](http://www.NHBS.co.uk).

Emorsgate Seeds (2023). [www.wildseeds.co.uk](http://www.wildseeds.co.uk)

## 7 APPENDICES

### 7.1 Appendix 1: Proposed Plan

Figure 1: Recommended locations for habitat enhancements.





**Figure 2: Recommended locations for lighting & hedgehog gaps.**



## 7.2 Appendix 2: Habitat Boxes/Bricks

Photograph 1: Schwegler Kestrel Box.



Photograph 2: Vivara Pro Sparrow Terrace by Bird Brick House.



Photograph 3: Beaumaris Bat Box.



**Photograph 4: Woodstone Swift Brick.**



**Photograph 5: Canon PIR Wall Light**



**Photograph 6: Example Hedgehog Gap**

