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Barn at Fleming Hall Farm
Gosforth
Cumbria

AVISON YOUNG

Ecological Constraints Study; 2024

VERSION 2

Final

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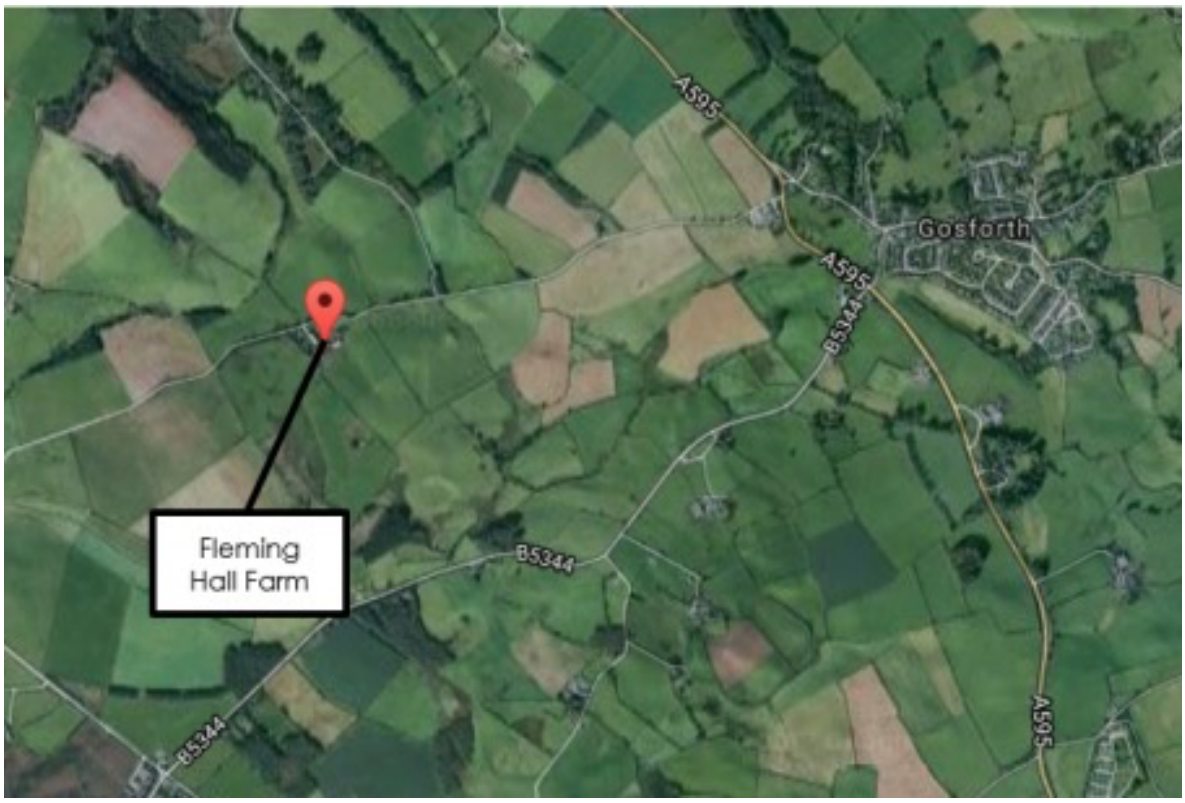
Contents

1. Introduction

BiOME Consulting Ltd was commissioned by Avison Young in July 2024 to undertake an update Ecological Constraints Study (ECS) to inform the demolition of a barn located at Fleming Hall Farm (Grid Reference: NY 05034 03204), Gosforth, Cumbria (**Figure 1**).

Various previous surveys have been completed in relation to this site, most recently in 2023[1].

Figure 1. Site Location



1.1. Site Description

Fleming Hall Farm, situated between the village of Gosforth and Sellafield Nuclear Power Station (NPS) in western Cumbria (**Figure 1**), comprises a farmhouse plus

1 BiOME Consulting Ltd (2023). *Barn at Fleminghall Farm, Gosforth, Cumbria. Ecological Constraints Study; 2023*

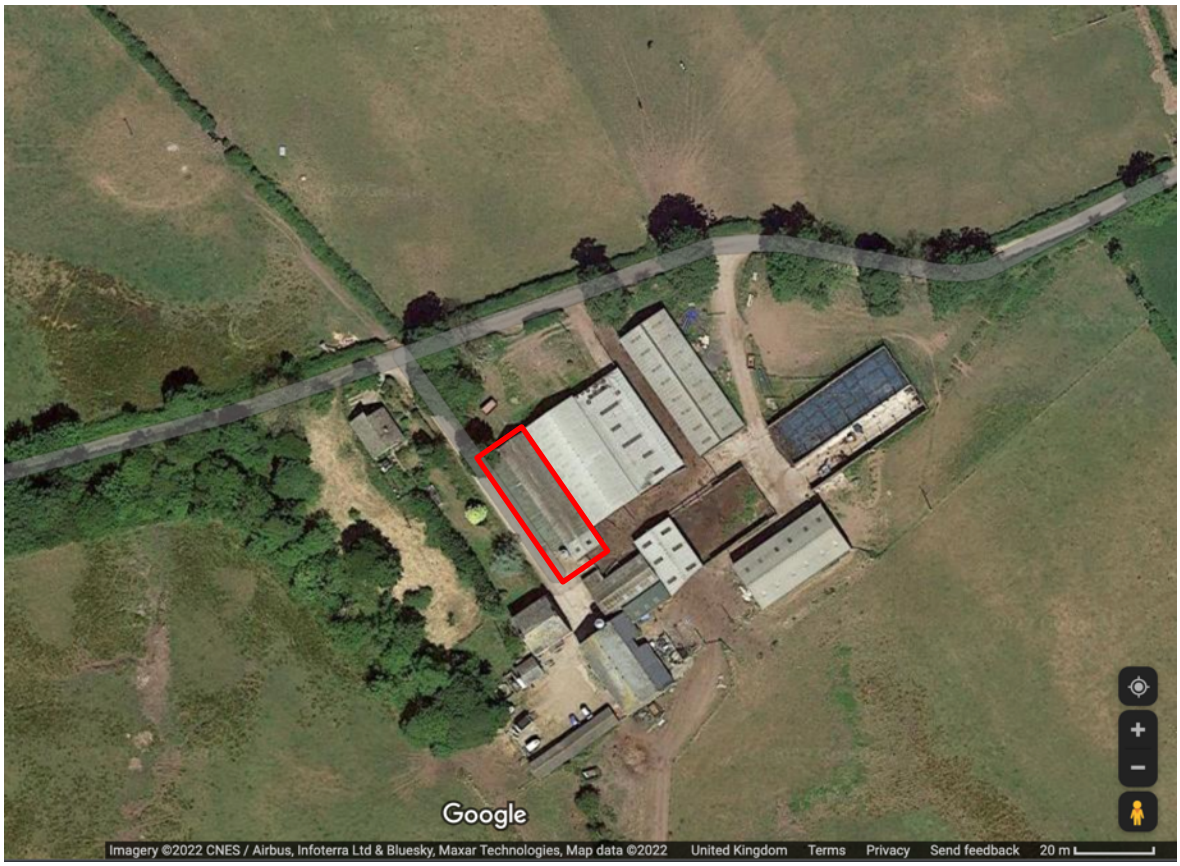
barns and associated outbuildings. Newmill Beck flows east-west to the north of the farm complex (240m at its closest point), whilst a ca. 300m long belt of broadleaved trees runs up to the western edge of the farm complex. The farm is a dairy farm and is largely surrounded by pastoral fields.

1.2. Proposed Works

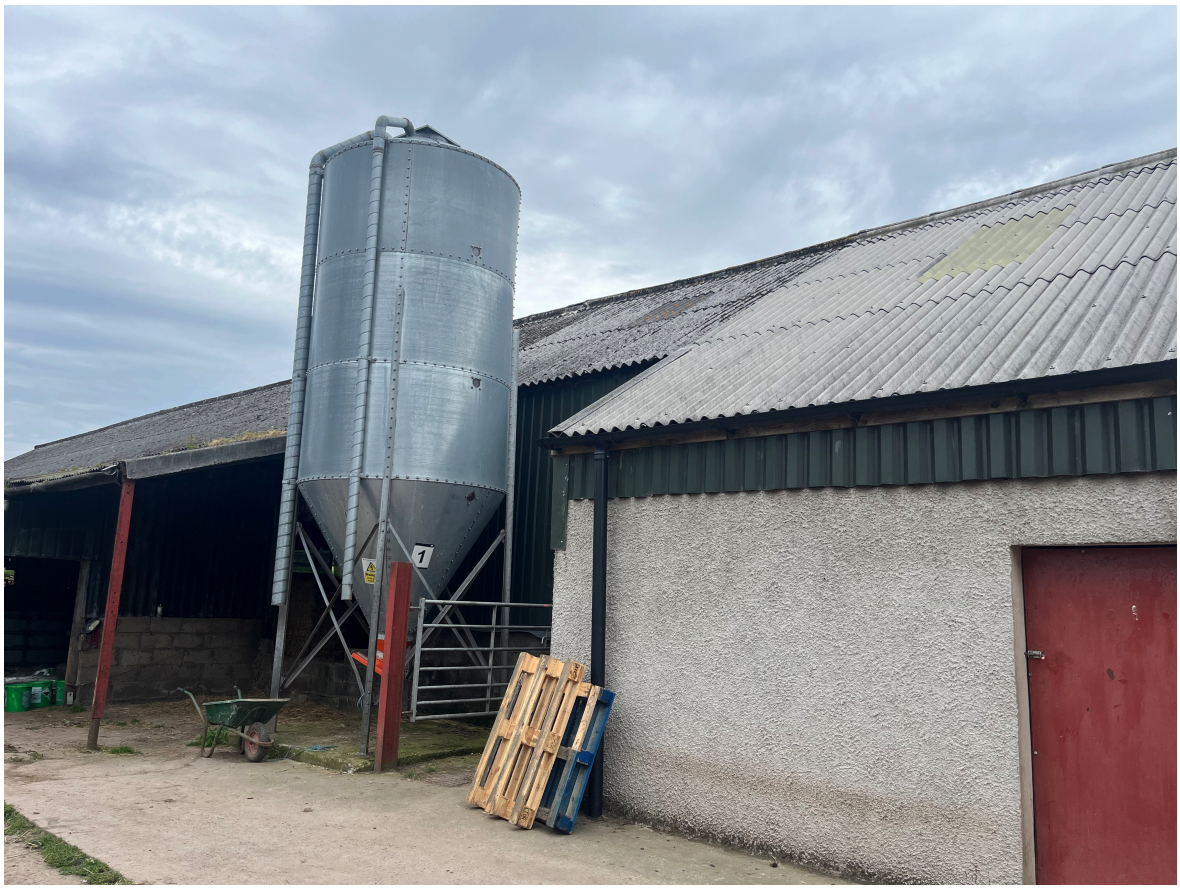
It is proposed to demolish a barn and adjoining canopy to the west and small enclosed building attached to the southern side of the barn, the location of which is shown in **Figure 2**.

There will be no impacts to semi-natural habitats.

Figure 2. Fleming Hall Farm buildings layout



Photograph 1. Western elevation of barn, showing adjoining canopy (2024)



2. Existing Survey Data

Designated Sites: There is one statutorily designated site within 2km.

Habitats: None of the habitats identified on-site were considered to be of significant ecological value and are not considered to represent a constraint to the proposed works.

Bats: No evidence of the presence of roosting bats was encountered and it was assessed that all buildings/trees to be impacted offered negligible potential for roosting bats.

Breeding Birds: The active nests of various species were present within the barn.

Other Species and General Mitigation: No further works in relation to other species/habitats were considered necessary at this time.

3. Methodologies

3.1. Desk Study

A comprehensive desk study was completed previously. Further desk study was not considered necessary to inform this 2024 ECS.

3.2. Preliminary Ecological Appraisal Survey

An update PEA survey[2],[3] was undertaken on 29 July 2024 by an experienced ecologist, Martyn Owen MCIEEM, in excellent weather conditions. Martyn holds survey licenses in relation to GCN (2016-19752-CLS-CLS), bats (2022-10620-CL18-BAT) and a variety of Schedule 1 birds (including Barn Owl *Tyto alba*). During the survey all areas within the site and site boundaries were walked and habitat types assessed. Signs of protected species, invasive plants (*i.e.* those included on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended)) and other notable species were also searched for during the survey, as well as noting habitats considered to have the potential to support protected species.

3.3. Bats

3.3.1. Preliminary Ground Level Inspection/Preliminary Roost Assessment

Update Ground Level Tree Assessments (GLTA) surveys of all trees and update Preliminary Roost Assessment (PRA) of all buildings to be impacted (directly or indirectly) was completed to determine their potential suitability for roosting bats.

The potential suitability of the buildings to be impacted by the proposed works for roosting bats was assessed in line with relevant guidelines[2] and allocated to one of the categories detailed within **Table 1**.

2 Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn). The Bat Conservation Trust, London

3 CIEEM (2017) *Guidelines for preliminary ecological appraisal* [online] available at: https://www.cieem.net/guidance-on-preliminary-ecological-appraisal-gpea- (accessed 28 July 2023)

Table 1. Guidelines for assessing the roost potential of proposed development sites for bats

Suitability	Description of Roosting Habitats
None	No habitat features on site likely to be used by roosting bats at any time of year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels.
Negligible	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion
Low	A structure/tree with one or more potential roost sites that could be used by individual bats opportunistically at any time of year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (*i*.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site, but could be used by individual hibernating bats).
Moderate	A structure/tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table are made irrespective of species conservation status, which is established after presence is confirmed).
High	A structure/tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.
Confirmed Roost	Definitive evidence of roosting bats, i.e. live animals or accumulation of droppings associated with Potential Roost Features (PRF).

All buildings/structures were also inspected/assessed for hibernation potential as well as evidence of bats and categorised in line with the criteria detailed within **Table 2**.

Table 2. Guidelines for assessing the hibernation potential of proposed development sites for bats

Suitability	Description
None/ Very Limited	A structure unlikely to support hibernating bats.
Classic Site	Often underground (e.g. tunnels, caves, mines, cellars) but may also be above ground. (e.g. some ice houses and lie kilns) and they provide cool, stable and damp conditions favoured by some species for winter torpor and hibernations.
Non-Classic Site	Void dwelling species (notably Brown Long-eared bat and Serotine) can linger in buildings into the winter but may not be visible to surveyors during inspection. Pipistrelles are often found roosting individually in more exposed/thermally unstable conditions.

A detailed assessment of the available tree roosting resource within the areas pf potential impacts was completed using a Ground Level Tree Assessment (GLTA) to map and categorise all trees that may be impacted.

This method involved a detailed inspection of each tree during daylight from ground level to compile information about the tree, PRFs (or lack of) and any evidence of bats. The inspection of each tree was completed systematically and consistently around all parts of the tree (from all angles and from both close to the trunk and further away) and the results recorded electronically. Torches were used to illuminate shaded areas and assessment was assisted with the use of binoculars (8x magnification) and telescopes (32x magnification).

Trees were categorised according to the criteria detailed within **Table 3**.

Table 3. Guidelines for categorising the potential suitability of PRFs on a proposed development site for bats, to be applied using professional judgement

Suitability	Description
Potential Suitability of Trees, applied using professional judgement	
None	Either no PRFs in the tree or highly unlikely to be any.
FAR	Further Assessment Required (FAR) to establish if PRFs are present in the tree.
PRF	A tree with at least one PRF present.

Suitability	Description
Potential Suitability of PRFs, applied using professional judgement	
PRF-I	PRF is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats.
PRF-M	PRF is suitable for multiple bats and may therefore be used by a maternity colony.

3.4. Limitations

The findings presented in this study represent those at the time of survey and reporting, and data collected from available sources. Ecological surveys are limited by factors which affect the presence of plants and animals, such as the time of year, migration patterns and behaviour.

4. Results

4.1. Site Survey

The barn and adjoining canopy were in identical condition to previous surveys, being constructed with breezeblock, wood and metal with a cement-bound asbestos and metal roof on metal frame. The small building adjoining the south of the barn was brick-built and rendered with a sheet metal roof. The barn and adjoining canopy were in active use as a cow shed while the small adjoining building was used to store milk.

4.1.1. Habitats

The habitats found in the study area are common across England. No habitats that conform to Local Biodiversity Action Plan or Section 41 priority habitats were identified.

4.1.2. Badger

The site is unsuitable for Badgers. All areas within the site were surveyed for Badgers, including adjacent boundaries and no setts or other evidence of Badgers was found and it is considered highly unlikely that Badgers would occur in areas to be impacted at any time.

4.1.3. Bats

The barn was fully inspected, no evidence of bat use was encountered. The interior of the barn was well illuminated due to roof panels and its open northern frontage. No PRFs were present associated with the barn or the adjoining outbuilding.

The buildings to be impacted were assessed to be of **NONE/NO** potential value to roosting (**Table 1**) / hibernating (**Table 2**) bats.

A single semi-mature Sycamore *Acer pseudoplatanus* tree was present immediately adjacent to the north-western corner of the barn. No PRFs were present on this tree, and it was assessed to be of **NEGLIGIBLE** potential value to roosting bats (**Table 1**).

4.1.4. Other Section 41 Mammals

The site is considered unsuitable for any other Section 41 mammal species.

4.1.5. Birds

No evidence of Barn Owl use was found in the barn although Barn Owls are reported by the site occupant to have bred within other barns at the site in the past.

Evidence of other species breeding within the barn was recorded including Swallow *Hirundo rustica* and House Sparrow *Passer domesticus*.

4.1.6. Invasive Plants

No non-native invasive plants listed on Schedule 9 of the Wildlife & Countryside Act 1981 (as amended) were observed during the survey.

4.1.7. Other Species

The results of the update ECS in relation to other species/habitats remained consistent from the previous surveys in 2023.

5. Conclusions and Recommendations

An update ECS has been completed. The conclusions and recommendations of these works are detailed below.

5.1. Designated Sites

Given the nature of the project and the distance to the nearest statutorily designated site, no adverse impacts upon are predicted as a consequence of the proposed works.

5.2. Habitats

None of the habitats identified on-site were considered to be of significant ecological value and are not considered to represent a constraint to the proposed works.

Retained trees on/near site should be protected in line with BS 5837:2012[4]. Standard pollution control measures should be implemented during construction to protect all habitats.

All works should be undertaken in accordance with *Guidance for Pollution Prevention (GPP5) and PPG1 Understanding your Environmental Responsibilities*.

5.3. Bats

No evidence of the presence of roosting bats was encountered and it was assessed that all buildings/trees to be impacted offered negligible potential for roosting bats. In the apparently unlikely event that bats are encountered all works must cease and the advice of a Suitably Qualified Ecologist (SQE) sought.

5.4. Breeding Birds

It was considered likely that birds nest within the site (within the building fabric and vegetation). The active nests of wild bird species (with certain exceptions) are legally protected from deliberate disturbance or destruction. Therefore, if re-development works are proposed for the bird nesting season (March-August

4 British Standards Institute BS 5837:2012. Trees in relation to design, demolition and construction.

inclusive), it will be necessary to appoint SQE to complete a check for active birds' nests. Should any active nests be found then it would be necessary to delay works until the nesting attempt has reached a natural conclusion. If works are planned for outside of the bird nesting period, then no such check is necessary.

5.5. Other Species

Taking into account the results of the site walkover survey, the nature of the site and the results of the desk study, no further works in relation to other species are considered necessary at this time.

5.6. Enhancement

The National Planning Policy Framework (NPPF) sets out national planning policies for the protection of biodiversity (and geological) conservation through the planning system. A key principle of NPPF is that, *'Opportunities to incorporate biodiversity in and around developments should be encouraged'*.

To enhance the site for roosting bats and nesting birds single bat (general purpose bat box) and bird box (House Sparrow tower) were installed in 2023.

5.7. Report Validity

The findings of this report are considered valid until 1 August 2025[5]. If the works are delayed beyond this date, update survey/s may be required.

5 CIEEM (2019). *Advice Note on The Lifespan of Ecological Reports and Surveys* [online] available at: https://cieem.net/wp-content/uploads/2019/04/Advice-Note.pdf