

**Tarn Head Farm
Sellafield
Cumbria**

Update Ecological Constraints Study; 2023

AVISON YOUNG

Final

VERSION 2

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BiOME Consulting Limited, 12 Abbott's Way, Shropshire, WV16 4JZ
info@biomeconsulting.com

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|------------------|---|
| Author | Martyn Owen MCIEEM |
| Project Manager | Martyn Owen MCIEEM |
| Reviewer | Richard Moores MCIEEM |
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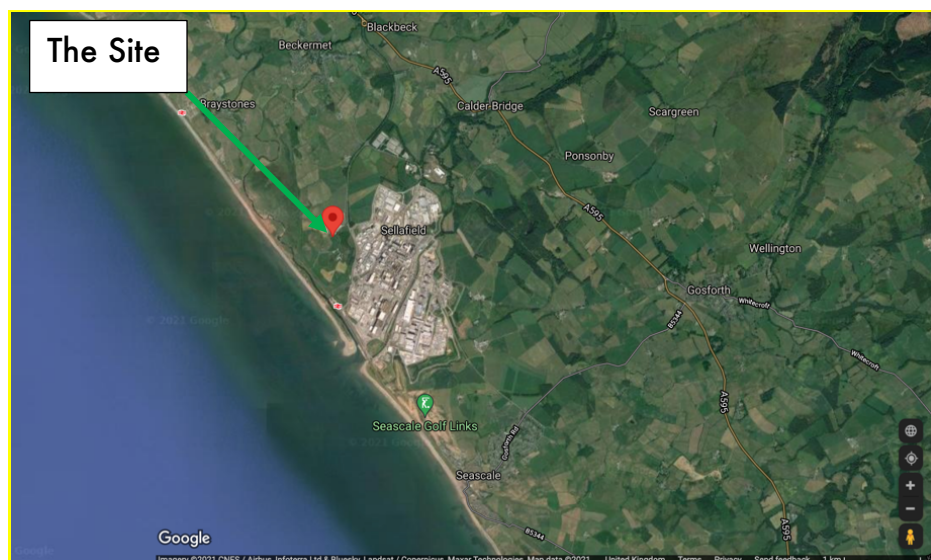
1. Introduction

BiOME Consulting Ltd was commissioned in June 2023 by Avison Young to undertake an update Preliminary Ecological Appraisal (PEA) and nocturnal bat survey in relation to the demolition of a number of buildings at Tarn Head Farm (Figure 1) (the 'site').

Previous ecological surveys have been completed in relation to this site in 2020¹ and 2022². Works have been delayed and due to the amount of time that has elapsed since the completion of these surveys, and in line with relevant guidelines³, an update PEA/Ecological Constraints Study (ECS) was deemed necessary to inform the proposed works.

This report details the methods employed, results obtained and recommendations to enable the lawful progression of the project from an ecological perspective.

Figure 1. Site location

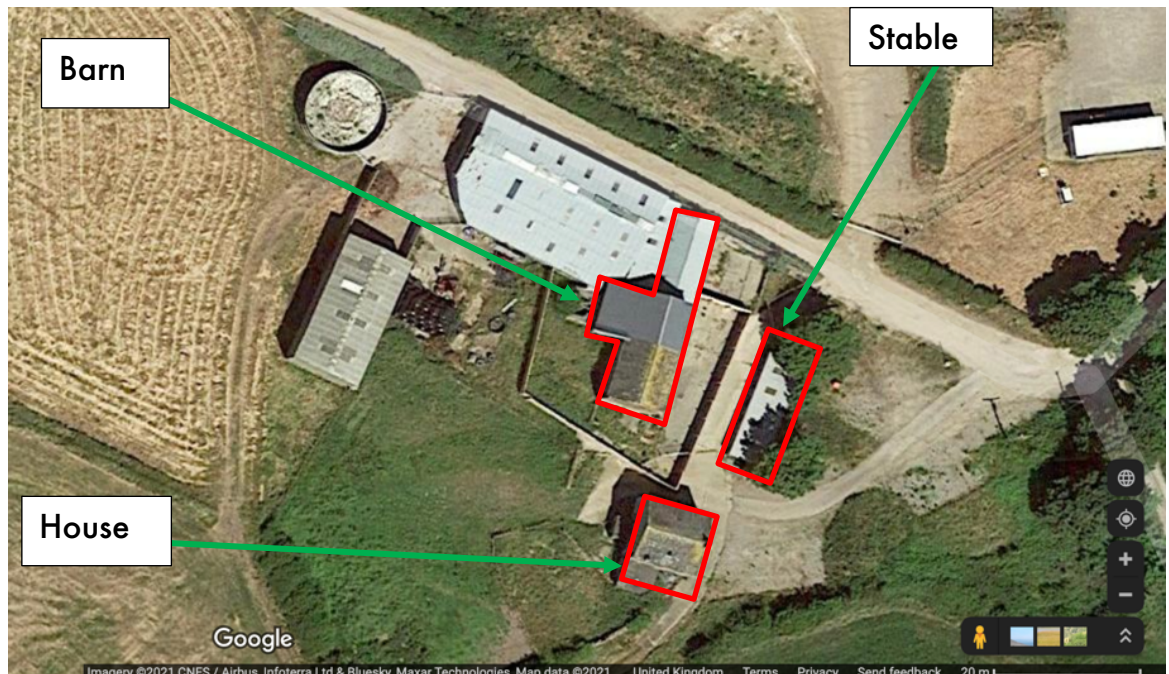


1 BiOME Consulting Ltd (2022). *Tarn Head Farm, Sellafield, Cumbria; Preliminary Ecological Appraisal*

2 BiOME Consulting Ltd (2022). *Tarn Head Farm, Sellafield, Cumbria; Update Preliminary Ecological Appraisal Report*

3 CIEEM (2019). *Advice Note on the Lifespan of Ecological Reports & Surveys*

Figure 2. Site layout, buildings to be demolished in red



1.1. Development Proposal

It is proposed to demolish the House, Barn, House and Stable (**Figure 2**)

2. Methodologies

2.1. Preliminary Ecological Appraisal Survey

A update PEA survey^{4, 5} was undertaken on 26 July 2023 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.

2.2. Bats

2.2.1. Preliminary Roost Assessment

A update Preliminary Roost Assessment (PRA) survey⁶ was undertaken concurrently with the PEA by Martyn Owen MCIEEM. This survey was completed in suitable weather conditions (overcast and dry). Prior to the completion of the site survey, aerial imagery was reviewed⁷.

The survey involved an inspection of the interior (where accessible) and exterior of the buildings to identify potential or actual bat access points and roosting sites, and to locate any evidence of bats such as live or dead specimens, bat droppings, urine splashes, fur-oil staining and/or squeaking/scratching noises. It should be

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

5 CIEEM (2017) *Guidelines for preliminary ecological appraisal* [online] available at: <https://www.cieem.net/guidance-on-preliminary-ecological-appraisal-gpea/> (accessed 25 July 2023)

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

7 Google Maps [online] available at: <https://www.google.co.uk/maps> (accessed 25 July 2023)

noted that sometimes bats leave no visible sign of their presence on the outside of a building (and even when they do wet weather can wash away evidence).

The inspection was facilitated by the use of ladders, binoculars, a high-powered torch, endoscope and small dental mirrors to inspect accessible crevices with the potential to support bats.

The potential suitability of the survey area for roosting bats was assessed in line with relevant guidelines⁶ and allocated to one of the categories detailed within **Table 1**.

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

| Suitability | Description of Roosting Habitats |
|------------------------|---|
| Negligible | Negligible habitat features on site likely to be used by roosting bats. |
| Low | A structure/tree with one or more potential roost sites that could be used by individual bats opportunistically. 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 or hibernation). |
| 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 – the assessments 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. |
| Confirmed Roost | Definitive evidence of roosting bats present. |

2.2.2. Emergence/Re-entry Surveys

One update nocturnal survey of all buildings on site was undertaken (**Table 2**).

To ensure coverage of all areas which could support bats the nocturnal survey of the House and Barn were completed by five surveyors, with surveys of the Stables completed by two surveyors (**Table 2**). The surveys were completed by Martyn Owen (NE bat licence no. (2022-10620-CL18-BAT), Richard Moores MCIEEM (NE bat licence no. 2015-12257-CLS-CLS), Rhys Owen, Laura Owen, Samuel Dreux QCIEEM, David Lee and Steve Forrester) all of which are highly experienced nocturnal bat surveyors.

The nocturnal bat survey was undertaken in weather conditions considered appropriate for surveys of this kind (**Table 2**).

Table 2. Survey details

| Date | Sunset/ rise | Time | | Cloud (octets) | Wind (Beaufort/ Direction) | Min. Temp (°C) | Precip. |
|----------|-----------------|-------|--------|-------------------|-------------------------------|----------------------|---------|
| | | Start | Finish | | | | |
| 27/07/23 | 05:16 | 03:30 | 05:30 | 8 | 1 W | 13 | Nil |

2.3. 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.

Access to all areas outwith the site boundary was not possible; however, it was possible to adequately assess these areas from within the site or from public rights of way.

Access to the interior of the on-site buildings, excluding the Stable, was not possible due to health and safety concerns. However, external inspections and nocturnal surveys were completed. This is not therefore considered a significant constraint and does not affect the validity of the conclusions of this report.

The inspection of buildings and built structures for evidence of bats can be conducted at all times of year. The daytime inspection was completed in the main period of bat activity (May-September inclusive) but it is possible that previous

evidence of low-level bat usage may have not been apparent. However, the buildings were not in regular use and any bat evidence inside the buildings would very likely have been visible to the surveyor, if present.

The update nocturnal bat survey was completed towards the end of the main period of bat activity. However, a full suite of surveys was completed in 2020 and the results of the updates were identical. This is not considered to compromise the aims of this update ecological assessment.

3. Results

3.1. Site Survey

The updated PEA did not suggest any changes to the observations made during the previous PEA conducted on 8 April 2021⁸ or update surveys in 2022.

3.2. Bats

No bats roosted within the House, Barn or Stable.

Foraging activity was low, with infrequent passes of Common and Soprano Pipistrelle logged along with seven *Myotis* sp. and three Brown Long-eared Bat passes also logged.

⁸ BiOME Consulting Ltd. (27 September 2021) *Tarn Head Farm, Sellafield, Cumbria Ecological Constraint Study*

4. Conclusions and Required Actions

4.1. Designated Sites

Nine non-statutorily designated sites are present within 2km of the site. Taking into account the nature of the proposed works, no effects to these locally designated sites are predicted, assuming all works strictly follow pollution prevention best practice.

4.2. Habitats and Species

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 5837:2012⁹. Where vegetation clearance is required, vegetation should be reinstated on at least a like-for-like basis. Standard pollution control measures should be implemented during construction to protect all habitats.

No evidence of **roosting bats** was identified during surveys and bat activity in the general area was low. No further survey work is required; in the apparently unlikely event that bats are encountered during demolition, all works must cease and the advice of a Suitably Qualified Ecologist (SQE) obtained. No further survey work in relation to the on-site trees present is required. However, in the unlikely event that bats are disturbed during tree removal, works must cease and the advice of a SQE sought.

As some limited scrub clearance is likely to be required on site, the works have the potential to cause disturbance, killing and injury of **reptiles** (and/or common amphibians). Further surveys are not necessary given the scale of habitat affected, but careful vegetation clearance to temporarily displace animals should be implemented.

⁹ British Standards Institute BS 5837:2012. Trees in relation to design, demolition and construction.

Vegetation clearance should be undertaken over winter (November-February). Alternatively, if carried out outside of this period, a two-stage clearance should be implemented, subject to an ecological watching brief by a SQE, with vegetation cut to 150 mm and then to ground level.

No **Badger** setts were present within the site or adjacent accessible areas. Nevertheless, the occasional presence of foraging Badgers is considered possible; it would therefore be prudent to consider Badgers during renovation works, this may include (if relevant):

- covering trenches at the conclusion of each working day, or include a means of escape for any animal falling into excavations, and
- any temporarily exposed open pipe system should be capped in such a way as to prevent Badgers gaining access.

The potential presence of breeding **Barn Owl** within the site has been identified, although no internal access to buildings where possible evidence was identified was possible. However, no Barn Owl were observed during nocturnal bat surveys and it is therefore considered highly unlikely that this species nested within the site during the survey periods. The internal inspection of the Barn will be required prior to demolition works.

If possible, any vegetation clearance/building works should be completed outside the **nesting bird** season (1 March to 31 August), although it should be noted that the nesting period may extend beyond these dates (for example, pigeons can breed in any month of the year in the UK). Should an occupied bird nest or a nest in the process of being constructed be encountered during works, clearance must cease in this area and should only re-commence once the birds have fledged or the nest is abandoned. If works must be undertaken during the nesting season, a survey to identify any nests which may be impacted will be required. This survey should be undertaken by a SQE. Again, should an occupied nest or nest under construction be found, works must cease in this area until the birds have fledged or the nest has been abandoned.

4.3. General Mitigation

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

If any protected species are encountered during the works, all works in the vicinity should stop immediately and a SQE contacted for advice on how to proceed.

4.4. Opportunities for 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*'. Taking the requirements of NPPF into account, opportunities should be sought where possible for nature conservation enhancement at this site, potentially including:

- The creation of habitat areas through landscape planting using native, locally sourced plants/trees.
- The planting of native fruiting species to provide a food source for invertebrates, birds and mammals.
- The installation of bird and bat boxes on retained tree/s. S41 priority species such as the House Sparrow (which were noted in the area) and Barn Owl could potentially benefit from the provision of appropriate boxes.
- Pond creation.

Such measures would be beneficial to nature conservation and show compliance with the latest policy guidance. It would be prudent to include details of enhancements within an Ecological Enhancement Plan.

4.5. Report Validity

The findings of this report are considered valid until 1 May 2024 from the date of this report¹⁰. If the works are delayed beyond this period, update survey/s will be required.

¹⁰ 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>