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New House Farm
Drigg
Cumbria

AVISON YOUNG
Ecological Constraints Study; 2023

VERSION 2
Final

29 June 2023

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Document History and Status

Version	Date	Reviewed By	Approved By	Date	Comment
1	29/06/23	RM			Draft for Technical Review
2	29/06/23	RM	RM	29/06/23	Final

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Client	Avison Young
Name of Project	New House Farm, Drigg, Cumbria
Name of Document	Ecological Constraints Study; 2023
Document Version	2
Document Status	Final

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1. Introduction

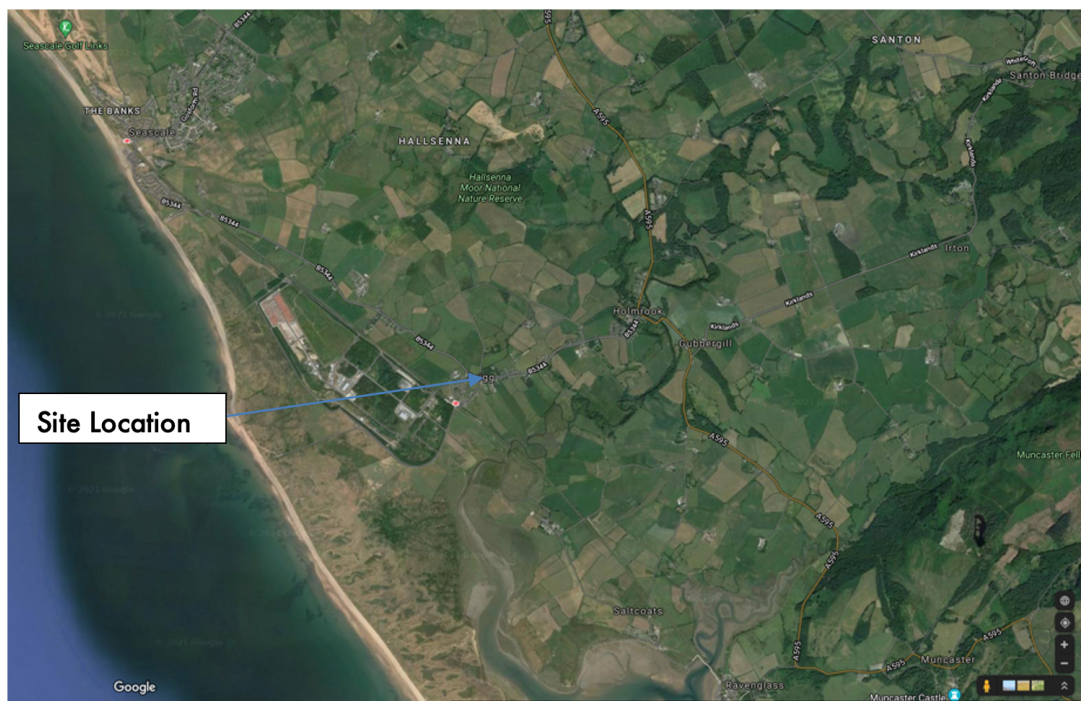
BiOME Consulting Ltd was commissioned by Avison Young in September 2021 to undertake an Ecological Constraints Study (ECS) (including a desk study)¹ of a site proposed for demolition.

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 guidelines², an update ECS was deemed necessary to inform a demolition application.

1.1. Site Description

The site, located within Drigg in western Cumbria (**Figure 1**), was a tenanted farm and included several barns/sheds, a house and yard area with roads to the north (B5344) and west (Station Road) and pasture to the east and south. Sparse residential housing was present in the wider area.

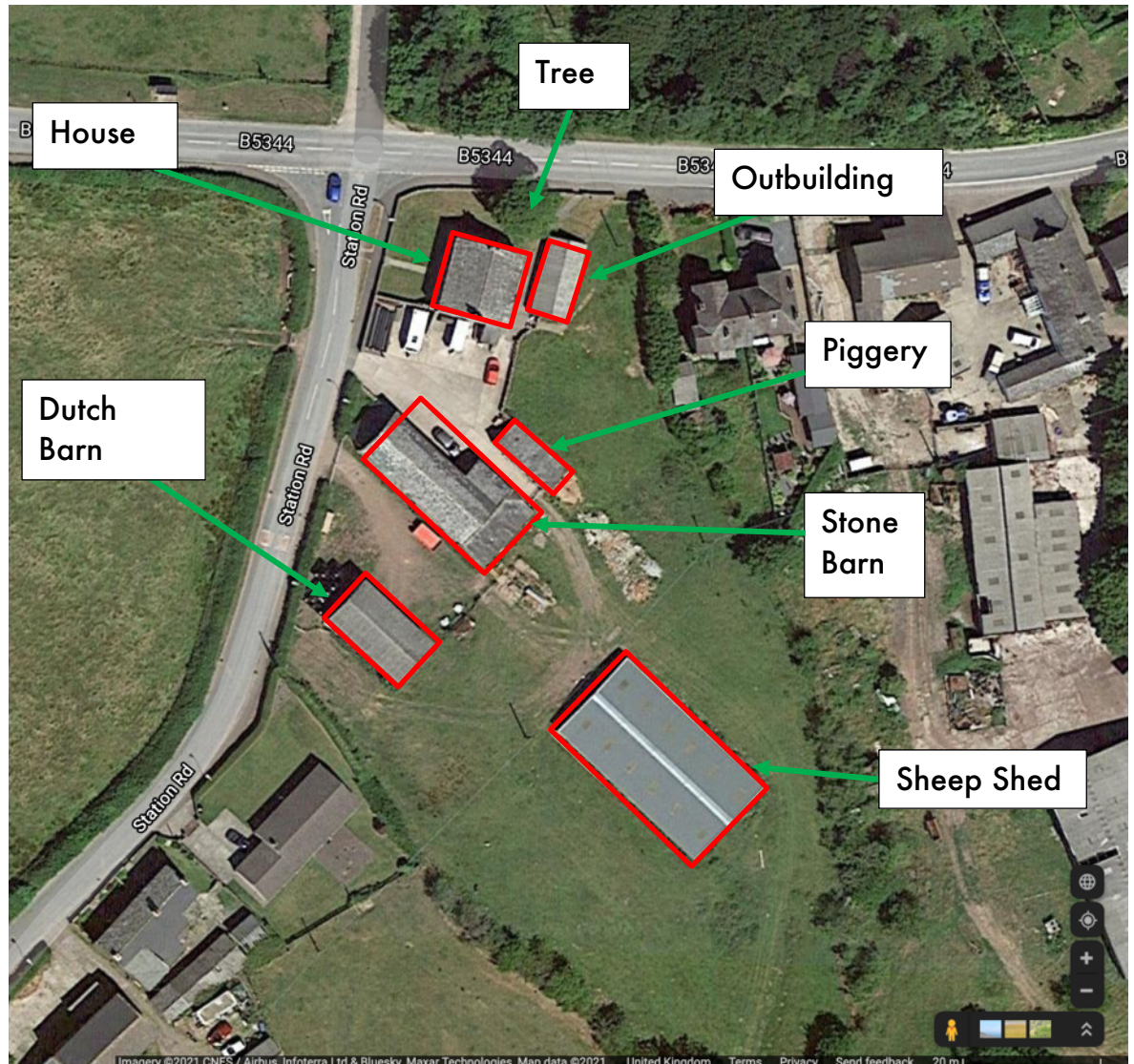
The site layout is shown on **Figure 2**.



¹ BiOME Consulting Ltd (2021). *New House Farm, Drigg, Cumbria, Ecological Constraints Study*

² CIEEM (2019). *Advice Note on the Lifespan of Ecological Reports & Surveys*

Figure 2. Site layout



2. Existing Survey Data

Designated Sites: There are five statutorily designated sites and six non-statutorily designated sites within 2km of the site. Considering the nature of the proposed works, no effects to designated sites are predicted, assuming all works strictly follow pollution prevention best practice.

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 roosting bats was identified within the House, Piggery or Outbuilding during the surveys and bat activity in the general area was relatively low. A day roost of two Common Pipistrelle was present within the Stone Barn. The confirmation of roosting bats within the Stone Barn means that a licence from Natural England will be required to enable the proposed works to proceed lawfully.

Preliminary Ground Level Inspection (PGLI) assessment followed by aerial inspection confirmed that the tree within the site is of negligible potential value to roosting bats.

Badger: No Badger setts were present within the site or adjacent accessible areas. although, the occasional presence of foraging Badgers is considered possible.

Breeding Birds: If works must be undertaken during the nesting season (March-August, inc.), a survey to identify any nests which may be impacted was deemed necessary.

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 in 2018. Further desk study was not considered necessary to inform this 2023 ECS.

3.2. Preliminary Ecological Appraisal Survey

A PEA survey^{3, 4} was undertaken on 26 June 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.

3.3. Bats

3.3.1. Preliminary Roost Assessment

An update Preliminary Roost Assessment (PRA) survey⁵ was completed by Martyn Owen MCIEEM on 26 June 2023. This survey was completed in suitable weather conditions (overcast and dry). Prior to the completion of the site survey, aerial imagery was reviewed⁶.

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,

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

4 CIEEM (2017) *Guidelines for preliminary ecological appraisal* [online] available at: <https://www.cieem.net/guidance-on-preliminary-ecological-appraisal-gpea-> (accessed 1 June 2023)

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

6 Google Maps [online] available at: <https://www.google.co.uk/maps> (accessed 1 June 2023)

urine splashes, fur-oil staining and/or squeaking/scratching noises. It should be 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 guidelines⁵ 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.

3.3.2. Emergence/Re-entry Surveys

One update nocturnal survey of the buildings on site identified as being of at least low bat roost suitability was undertaken (**Table 1**).

Surveyors were equipped with electronic bat detectors (EM Touch Pro 2) and sound files were analysed with appropriate bat analysis software (Kaleidoscope) once the surveys were completed. Infra-red cameras (Canon XA60) and additional infrared lighting (Nightfox XB5 IR and flood lamps) were used, with cameras positioned to ensure that all areas with the potential to support roosting bats were covered. Following the survey, recorded footage was analysed.

To ensure coverage of all areas which could support bats nocturnal surveys of the buildings were completed by up to six surveyors (**Table 2**). Due to their proximity, surveys of the Stone Barn, Outbuilding and Piggery were combined (**Table 2**). Surveys were completed by Richard Moores MCIEEM (NE bat licence no. 2015-12257-CLS-CLS), Martyn Owen MCIEEM (NE bat licence no. 2022-10620-CL18-BAT), Samuel Dreux QCIEEM, Rhys Owen, Laura Owen and Steve Forrester, all of which are highly experienced nocturnal bat surveyors.

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

Table 2. Survey details

Date	Surveyors	Sunrise	Time		Cloud (octets)	Wind (Beaufort/ Direction)	Temp (° C)	Precip.
			Start	Finish				
Stone Barn, Outbuilding & Piggery								
27/06/23	MO/RO/SF /SD/RM/LO	04:41	03:00	04:55	7	2 SW	14	Nil
House								
27/06/23	MO/RO	21:53	21:38	22:53	5-7	1-2 SW	12	Nil

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.

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.

No access was possible to the interior of the house.

4. Results

4.1. Bats

The buildings were in near-identical condition to during the original PEA and nocturnal bat surveys, and the conclusions of the original PRA remain valid. No bat evidence was found on the buildings exteriors or in accessible interiors. The results of the update emergence/re-entry survey are provided below.

No evidence of roosting bats was identified within the [House](#), [Piggery](#) or [Outbuilding](#) during the surveys and bat activity in the general area was relatively low.

A Common Pipistrelle re-entered its roost site within the [Stone Barn](#) at 04:21 via Roost Access Point (RAP) 1 ([Photograph 1](#)).

Photograph 1. RAP 1



4.2. Barn Owl

A Barn Owl flew through the site at dusk on 27 June 2023, although did not enter any on site buildings.

4.3. Other Species

The results of the update ECS in relation to other species/habitats remained consistent from the previous surveys in 2021.

5. Conclusions and Recommendations

An updated PEA survey and emergence/re-entry bat survey has been completed. The conclusions and recommendations of these works are detailed below.

5.1. Designated Sites

There are five statutorily designated sites and six non-statutorily designated sites within 2km of the site. Considering the nature of the proposed works, no effects to designated sites are predicted, assuming all works strictly follow pollution prevention best practice.

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 5837:2012⁷. 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.

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

5.3. Bats

5.3.1. Buildings

5.3.1.1. House, Piggery, Outbuilding, Sheep Shed & Dutch Barn

No evidence of roosting bats was identified within these buildings during the surveys and bat activity in the general area was relatively low. No further survey work is considered necessary prior to demolition works.

⁷ British Standards Institute BS 5837:2012. Trees in relation to design, demolition and construction.

In the apparently unlikely event that bats are encountered during the works to these buildings, all works must cease and the advice of a Suitably Qualified Ecologist (SQE) obtained.

5.3.1.2. Stone Barn

Results Summary

Table 3 summarises the results of the bat surveys. The likely roost type based on the surveys completed is included below, along with an assessment of roost value⁸.

Table 3. Bat survey results summary

Roost Access Points	Species	Maximum Number Recorded Roosting	Likely Roost Type (Maximum Value)	Roost Value	Impacted by Development?
1	Common Pipistrelle	2 (in 2021)	Day Roost	Local	Yes

The specific roost site of the species detailed within **Table 3** could not be determined.

Impacts

The proposed works will result in the loss of the roost.

Natural England Licencing

The confirmation of roosting bats within the Barn means that a licence from Natural England will be required to enable the proposed works to proceed lawfully. Given the identified roosts are of low conservation status, the site can be registered under the Bat Mitigation Class Licence (BMCL) scheme through a Registered Consultant (RC). Following submission of appropriate forms, the application takes up to ten working days to be assessed by Natural England.

No works to the Barn that may disturb roosting bats or prevent access to a potential bat roost should be completed until a licence is in place.

⁸ Wray, S., Wells, D., Long, E., Mitchell-Jones, T., (2010). *Valuing Bats in Ecological Impact Assessment*.

Timing of Works

There are no restrictions with regards to when (e.g. certain months of the year) works can take place, although it would be best practice to avoid low winter temperatures when bats may be in torpor (pipistrelles can use the same roosts year-round). A BMCL can only be obtained a maximum of four months prior to the start of works to the area of the roost and the licence covers a maximum timeframe of six months (i.e. works to destroy/modify the roost must be completed in six months, NOT that the project must be completed within this six-month window). All permissions are required to have been obtained before the site can be registered under the BMCL scheme.

To inform the BMCL application surveys must have been completed during the most recent bat active season. Consequently, if works do not occur before May 2022 at least one update survey will be required.

Supervision of Works

Prior to demolition, when safe access to the interior is achievable, survey of the interior will be needed to try and ascertain the roost location.

Works in the area of the roost (or potential roost sites if the specific location cannot be ascertained) will need to be supervised by an RC (or accredited agent). Prior to works commencing, the RC would provide a 'toolbox talk' to those contractors on site in which details of e.g. best working practices and what to do in the event of discovering a bat would be discussed.

During supervised works to the area of the roost the RC would capture any bats that do not fly away and move them to a temporary bat box (erected on a nearby tree/structure prior to works commencing).

These works (when capture/handling and exclusion of bats is possible) should ideally take place in conditions suitable for bats to be active (spring-autumn inclusive). However, works can also be undertaken in the winter as long as weather conditions allow (sunset temperature of at least 8°C on preceding 2+ days).

Compensation

Although there is no requirement for any compensatory roosting features to be installed under the BMCL scheme (favourable conservation status is maintained without any compensation), it is recommended that two Schwegler 2F⁹ bat boxes with double front panels are installed on trees around the periphery of the site.

5.3.2. Trees

No further survey work in relation to the on-site trees is required. However, in the unlikely event that bats are disturbed during site works, works must cease and the advice of a SQE sought.

5.4. Badgers

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.

5.5. Breeding Birds

If possible, any vegetation clearance/building works should be completed outside the bird nesting 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 Suitably Qualified Ecologist (SQE). Again, should an occupied nest or nest

⁹ <https://www.nhbs.com/2f-schwegler-bat-box-with-double-front-panel>

under construction be found, works must cease in this area until the birds have fledged or the nest has been abandoned.

5.6. Other Species and General Mitigation

No further work in relation to other species is considered necessary at this time.

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.

5.7. 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.

5.8. 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>