North Moor Farm Bat and Barn Owl Survey Report

IAMP

IAMP LLP

October 2022

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Quality Control

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Ecological Impact Assessment

North Moor Farm, Washington, NE36 0BB

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1.0 EXECUTIVE SUMMARY

1.0.1 Durham Wildlife Services Ltd was commissioned by IAMP LLP in January 2022 to undertake update bat and barn owl surveys at North Moor Farm, Washington, NE36 0BB. The approximate National Grid Reference for the centre of the site is **NZ 33006 59087**.

1.0.2 The survey is required prior to demolition of the buildings on site, as part of a Nationally Significant Infrastructure Project (NSIP) known as IAMP (International Advanced Manufacturing Park). A bat and barn owl *Tyto alba* risk assessment survey took place on the 2nd February 2022 and was undertaken by Karen Devenney (Licence No. 2015-11466-CLS-CLS) and Sacha Elliott (Barn Owl Licence CL29/00411). Nocturnal surveys were then carried out in May and June 2022.

1.0.3 The 2022 surveys were an update, with surveys also carried out in 2015 (WYG 2015), 2018 (DWS, 2018) and these reports should be read in conjunction with this one, but are summarised within this report. No bat roosts have been recorded in any of the buildings on site.

1.0.4 Checks for barn owls were carried out at the same time as the bat risk assessment. A barn owl flew out of the arena on site (Building Reference 2). A small number of barn owl pellets were also found in the northern end of the western part of Building Reference 3 (stables). No buildings provided suitable nesting features for barn owls.

1.0.5 Demolition will result in the loss of two barn owl Active Roosting Sites (ARS). The site is not being used for breeding. Three barn owl boxes have already been erected nearby; one in a mature tree a short distance away, and two within Hylton Bridge Farm (Stables) (Figure 5). The tree selected is in the open and mature, with a fork to provide suitable secure locations for the box to be installed.

1.0.6 Adhering to the Policy EN2 of the IAMP Area Action Plan (2017), monitoring will be undertaken on all the mitigation proposed above.

- All boxes will be checked annually to ensure they are intact and secure. Any lost or damaged boxes will be replaced.
- Monitoring surveys will be carried out every three years for the next twenty years. The first took place in 2022 (DWS 2022). The next will take place

in 2025. These surveys will include checks of the barn owl boxes by a licenced barn owl ecologist.

- The barn owl boxes checks are weather dependant. June should be avoided because they are more susceptible to disturbance around this time. Bad weather early season may delay this, and this should be taken into account. Nocturnal surveys are an alternative way to monitor the boxes on site.

2.0 INTRODUCTION

2.1 Background

2.1.1 Durham Wildlife Services Ltd was commissioned by IAMP LLP in January 2022 to undertake update bat and barn owl surveys at North Moor Farm, Washington, NE36 0BB. The approximate National Grid Reference for the centre of the site is **NZ 33006 59087**.

2.1.2 The survey is required prior to demolition of the buildings on site, as part of a Nationally Significant Infrastructure Project (NSIP) known as IAMP (International Advanced Manufacturing Park). A bat and barn owl *Tyto alba* risk assessment survey took place on the 2nd February 2022 and was undertaken by Karen Devenney (Licence No. 2015-11466-CLS-CLS) and Sacha Elliott (Barn Owl Licence CL29/00411). Two nocturnal surveys were carried out in May and June 2022.

2.1.3 The 2022 surveys were updates, with surveys also carried out in 2015 (WYG 2015), and 2018 (DWS, 2018) and these reports should be read in conjunction with this one, but are summarised within this report. No bat roosts have been found in any of the buildings on site.

2.2 Site Description

2.2.1 The IAMP site totals over 300 hectares including a 115 hectare Ecological and Landscape Mitigation Area (ELMA). It is located north of Nissan Manufacturing UK in Sunderland, but spans an area of South Tyneside as well. North Moor Farm lies towards the west within the IAMP ONE area. Large areas of the development site are made up of arable land and improved grassland. A small number of semi-improved grasslands are present. There are a number of small woodlands present across the site, a mixture of plantation and semi-natural (some of these woodlands also fall within a Local Wildlife Site). The River Don and Usworth Burn also flows through site. Cottages and farm holdings are scattered across the site and the A19 Dual Carriageway lies to the east.

2.2.2 North Moor Farm includes a farmhouse, kennels, stables, and barns. The farm lies within the IAMP ONE Ecological and Landscape Mitigation Area (ELMA). There were a number of sheds and portacabins that included the cattery on site. A large corrugated metal barn on site was an indoor area. The adjacent stables are wood or brick/breezeblock and corrugated metal/plastic roofed. A second barn was

corrugated metal and open fronted, with some walls/roof missing. The farmhouse itself is a single storey stone building with flat concrete tiles on the roof (Figures 1 and 2, Appendix A).

2.3 Survey Objectives

2.3.1 Surveys were undertaken to:

- establish the presence / absence of bat roosts and barn owls in the buildings,
- assess the level of usage of confirmed roost sites and the status of the roosts,
- identify access points utilised by bats,
- assess the level of usage for barn owls,
- determine an appropriate mitigation strategy to minimise impacts on roosting bats and barn owls arising from the proposed works.

3.0 METHODOLOGY

3.1 Desk Study

3.1.1 A request was issued to Environmental Record Information Centre North East (ERIC NE) for any information regarding protected/controlled species on, or in the direct vicinity of the site.

3.2 Survey Approach

3.2.1 The survey for bats involved external and internal examination of the properties following the methodology outlined in the Bat Worker's Manual (Mitchell-Jones and Mcleish 2004). The survey for barn owls involved external and internal examination of the buildings for evidence of occupation in the form of droppings, pellets, feathers, nests and actual Barn Owls following the methodology outlined in the Barn Owl Survey Methodology and Techniques for use in Ecological Assessment (Shawyer, 2011) and the Barn Owl Conservation Handbook (The Barn Owl Trust, 2012).

3.2.2 The update bat and barn owl risk assessment survey took place on the 2nd February 2022 and was undertaken by Karen Devenney (Licence No. 2015-11466-CLS-CLS) and Sacha Elliott (Barn Owl Licence CL29/00411).

3.3 Buildings

3.3.1 The building exteriors were visually assessed for potential access points and evidence of bat activity in February 2022. Features which have potential as access points were sought, such as small gaps in barge/soffit/fascia boards, raised or missing ridge tiles or flashing and gaps in mortar, brick and/or stonework. Evidence that potential access points were actively used by bats including staining within gaps and bat droppings or urine staining under gaps was recorded. Indicators that potential access points were likely to be inactive included the presence of cobwebs and general detritus within the access.

3.3.2 The interiors of the buildings were also visually assessed where possible for evidence of bat activity and/or for the potential to be used by bats. Evidence of a roost was determined as the presence of a dead or live bat, concentrated piles or scattered droppings, food remains such as insect wing fragments as well as scratch marks and/or staining.

3.3.3 Before entering, the exterior of each building was inspected for any holes in the outside walls which would be large enough to allow a barn owl access to the

interior. These were also inspected for droppings on the walls beneath. Whilst the interior was inspected, one surveyor remained outside the building to ensure a good view of any owls that may leave the building during the inspection.

3.3.4 The interior of the building was then systematically inspected for roosting owls, pellets, droppings and feathers by working across the floor, searching the area underneath the roof beams and pipes. The area beneath all potential roosting sites was searched, and all ledges and cavities were thoroughly inspected.

3.4 Nocturnal Surveys

The nocturnal surveys were conducted by surveyors equipped with Echo Meter 3 and EM Touch bat detectors. Three infrared cameras were also used (Nightfox Swift) adjacent to each surveyor on the farmhouse. The emergence survey commenced 15 minutes before sunset and continued until all bats were considered to have emerged in accordance with the Bat Conservation Trust Guidelines (BCT, 2016). Following the BCT (2022) interim guidance note, only dusk surveys were carried out, with infrared cameras, because research has found that dusk surveys with night vision aids are far more effective at finding roosts than dawn survey. All video footage was reviewed afterwards using VLC Media Player. An image from the video camera can be found in Appendix B (Photograph 17).

3.4.1 During the nocturnal bat surveys, barn owls were also recorded, with the main objective to record any barn owls entering or leaving the surveyed properties and the location of any entry/exit points. In addition, surveyors record any other barn owl activity detectable from their survey position. Where possible the time of recording, species, number of barn owls, type of activity, and flight path of observed birds is recorded. Barn owls entering or leaving a building are considered evidence of roost presence within the property.

Table 1 Survey dates and personnel - WYG 2014 Surveys

Date	Building Surveyed	Surveyor 1	Licence No	Additional Surveyors
17/06/2014 Dusk Start 21.30 End 23.17 Sunset 21.47 Temp: S/16.2°C E/14.0°C No wind	Building 5 (Farm House)	Michelle Nesbitt	Class 2 licence registration number CLS01505	Kirstin Aldous (Class 2 licence registration number CLS02009) Katherine Knox
16/07/2014 Dawn Start 02.49 End 04.49 Sunrise 04.49 Temp: S/10.1°C E/9.1°C No wind	Building 5 (Farm House)	Michelle Nesbitt	Class 2 licence registration number CLS01505	Martin Fagan Katherine Knox

Table 2 Survey dates and personnel - DWS 2018 Surveys

Date	Building Surveyed	Surveyor 1	Licence No	Additional Surveyors
02/07/2018 Dusk Sunset: 21.46 Start: 21.31 End: 23.16 Start Temp: 15.4 °C End Temp:13.8 °C Dry, light 9mph winds	Building 5 (Farm House)	Victoria Telford	2017-27880-CLS-CLS	Daniel Gray Andy Pounder
07/08/2018 Dawn Sunrise: 05.25 Start: 03.55 End: 05.40 Dry, no wind. Start Temp: 15 °C End Temp:17 °C	Building 5 (Farm House)	Dan Gray		Jennie Lowden

Table 3 Survey dates and personnel - DWS 2022 Surveys

Date	Building Surveyed	Surveyor 1	Licence No	Additional Surveyors
05/05/2022 Dusk Sunset 20.49 Start 20.34 End 22.19 Temp: S/14°C E/13.5°C Weather: Dry, light/no wind Beaufort scale 1	Building 5 (Farm House), 8 and 9 (Cattery)	Laura Thompson	2018-35006-CLS-CLS	Dominic Maxwell Louise Ellis Victoria Telford (Licence Number 2017-27880-CLS-CLS) Dan Rose Joseph Fletcher
13/06/2022 Dusk Sunset 21.45 Start 21.30 End 23.15 Temp: S/13.9°C E/10°C Weather: Dry, Beaufort scale 1-2	Buildings 5 (Farm House), 3 (stables)	Karen Devenney	2015-11466-CLS-CLS	Samantha Turnbull Emma Smith Joe Fletcher Liam Thompson

3.5 DWS Surveyor Experience

3.5.1 **Karen Devenney MSc MCIEEM (Bat Licence 2015-11466-CLS-CLS)**

Karen has been a member of Durham Bat Group since 2006, through which she gained her scientific and conservation bat licence in 2008. She has been carrying out commercial bat surveys for around 9 years. During this time, she has worked on a wide range of projects, from windfarms and large-scale housing developments, through to schools, barns and individual houses. Carrying out a range of techniques from risk assessments, dusk and dawn surveys, transects, and sound analysis. She has also held numerous EPSM development bat licences, holds a Class Mitigation Licence for bats, as well as being on the Earned Recognition Scheme for bats.

3.5.2 **Sacha Elliott (Bat Licence no. 2017-31732-CLS-CLS, Barn Owl Licence CL29/00411)**

Sacha is in her ninth season of bat work which has included carrying out risk assessments, dawn and dusk surveys and hibernation surveys on a variety of projects and properties. Sacha also has extensive experience at carrying out

surveys for a range of protected and notable species of mammal, as well as being an experienced ornithologist. She holds bat, great crested newt and barn owl licences.

Additional Surveyors Bat Nocturnal Surveys

3.5.3 **Dan Gray**

Daniel has gained a range of experience working with bats over the past 7 seasons, in voluntary, subcontractor and full time positions – completing bat risk assessments on sites from schools and hostels to cathedrals and trees. He has also completed numerous dawn and dusk surveys using point and transect methods on projects including single buildings and sites with multiple buildings, bridges and castles.

3.5.4 **Andy Pounder**

Andrew is a member of Durham Bat Group and is working towards his bat licence. Andrew has worked on commercial bat surveys since 2004. Surveys have included risk assessments, small scale domestic surveys, barn conversions, larger commercial property's, traditional and heritage buildings, large scale developments and wind farm (development and monitoring); including emergence, dawn, feeding, transects, inspections, overseeing demolition work and contractors during work relating to licensed operations across the North East of England.

3.5.5 **Laura Thompson (Licence number 2018-35006-CLS-CLS)**

Laura has been completing commercial bat surveys since 2011. Surveys include static dusk emergence surveys and dawn re-entry surveys on a wide range of developments ranging from individual properties, schools and wind turbine developments. She has also carried out several transect surveys at both dusk/dawn and risk assessments of a variety of buildings/structures. She has also contributed to the BCT Waterway surveys since 2015.

3.5.6 **Victoria Telford (Licence number 2017-27880-CLS-CLS)**

Victoria is a Senior Ecologist who has relevant work experience within the planning/ ecological industry since 2011. She completed her masters course from Newcastle University in Wildlife Conservation and Management and worked initially as a bat surveyor, then administration and in 2014 acquired her full time ecologist role. She is experienced in undertaking habitat surveys and numerous protected species surveys including bats, badgers, reptiles and great crested newts as well as riparian mammals. She also partook in a volunteer scheme at Gosforth Park

reserve, which included undertaking surveys for the UK butterfly monitoring programme. She is able to complete EcIA, HRA reports and has completed a course on the use of biometric calculations. She holds a level 2 bat licence (2022-10265-CL18-BAT) and a great crested newt survey licence (2017-27880-CLS-CLS).

3.5.7 **Daniel Rose**

Daniel started carrying out commercial bat surveys in 2020 and received extensive training at the start of the 2020 bat season. He has since carried out a number of bat surveys including vantage point and transects, on a range of structures including trees, schools, listed and heritage buildings, industrial properties, and houses. He has also assisted with the Bat Conservation Trusts Waterway Surveys.

3.5.8 **Dominic Maxwell**

Dominic has been employed with a variety of different ecology companies doing various bat surveys such as transect & static, during dusk and dawn hours. This has been undertaken within a wide range of different environments such as schools, housing estates, heritage sites, etc, in all parts of the country. He has over 9 years' experience and is proficient with all the associated equipment used when conducting surveys.

3.5.9 **Emma Smith**

Emma has been completing commercial bats surveys since 2018, including dusk emergence and dawn re-entry surveys on individual properties, industrial buildings and Natural Heritage sites. She has also carried out several dusk transect surveys. She has been contributing to the BCT National Bat Monitoring Programme since 2019.

3.5.10 **Joseph Fletcher**

Joe has recently undergone training with a senior and bat licensed member of the Total Ecology team in the 2022 survey season to gain an understanding of bat ecology in the UK as well as identification skills of bats and roosts.

3.5.11 **Liam Thompson**

Liam has conducted a range of bat surveys both as an Assistant Ecologist and subcontractor over the last four years. Surveys include vantage point ad transects at dusk and dawn, as well as completing preliminary risk assessments. Liam has

completed supervision works where bat presence has been suspected and has assisted with exclusion surveys under licence.

3.5.12 **Louise Ellis**

Louise is currently completing her first season of bat surveys after receiving numerous evenings of training via Total Ecology and experienced subcontractors. Louise has completed a number of dusk and dawn surveys over the season so far including heritage buildings and historical monuments, and farm buildings.

3.5.13 **Samantha Turnbull**

Samantha is currently undertaking her first season of bat surveys after receiving training through Total Ecology and experienced subcontractors. Samantha has completed numerous dusk and dawn surveys over the season so far, including heritage buildings and historical monuments.

3.5.14 **Jennie Lowdon**

Jennie has undertaken numerous dusk, dawn, transect and activity surveys for bats using a range of bat detection equipment, with experience of surveying large housing estate, farms and quarries. She is also competent at undertaking risk assessment for bats. She graduated from Northumbria University with a BSc in Environmental Management.

4.0 SURVEY RESULTS

4.1 Desk Study and Consultation Response

4.1.1 ERIC NE provided 25 bat records within 2km of the survey boundary. A large number of these are records from previous surveys across the wider IAMP site. Several records are from survey works carried out in the surrounding area after works to the A19 road and junction. The vast majority of species within 2km were common pipistrelle *Pipistrellus pipistrellus*. Other species include noctule *Nyctalus noctula*, soprano pipistrelle *Pipistrellus pygmaeus* and brown long-eared *Plecotus auritus*. No records are for the site itself.

4.1.2 ERIC NE, including Durham Bird Club records, provided 61 records of barn owls. The vast majority are for Washington Wildfowl and Wetland Centre. 17 are for West Pastures, Nissan and Hylton Bridge. West Pastures and Hylton Bridge fall within the wider IAMP site. One of these records is for a barn owl roosting in a barn, with the rest foraging activity, with the most recent dated from 2013 at Hylton Bridge. No records are for the site itself.

4.1.3 The WYG 2014/15 (WYG 2015) surveys across the IAMP area found bat roosts in Make-me-rich Cottage, and Elliscope Farmhouse, with small numbers of common pipistrelles recorded in both. A soprano pipistrelle roost has also been recorded within a horse-chestnut tree in the woodland at Hylton Bridge. DWS in 2018 found small common pipistrelle roosts in buildings 2 & 5 at West Moor Farm, Make-Me-Rich building 1, Elliscope Farm Building 6 & 8, My Pet Stop Building 3, Strother House building 2 and trees 34 & 52. Building 9 at Hylton Grove, building 8 at Elliscope Farm, and Tree 57 recorded small soprano pipistrelle roosts. Update surveys carried out in 2020 & 2021 by DWS found roosts still present within Make-me-rich, Hylton Grove, Elliscope Farm and a small common pipistrelle roost within Usworth Cottages (latter two are now demolished). There are no previous records of bat roosts at North Moor Farm.

4.1.4 The WYG 2014/15 (WYG 2015) report found Temporary Roosting Sites (TRS), ARS and PNS for barn owls at West Moor Farm and Elliscope Farm. DWS in 2018 also found pellets within West Moor Farm and recorded barn owls during nocturnal surveys confirming the site as an ARS, and PNS, although they were not deemed to be breeding there in 2018. Old pellets were found in 2018 at Elliscope but no fresh evidence nor were any barn owls seen during nocturnal surveys. E3 Ecology (2019) recorded no fresh barn owl signs at West Moor Farm, and no barn owls were seen during the nocturnal survey.

4.1.6 Surveys in 2020 & 2021 (DWS, 2021) found fresh barn owl pellets in Hylton Bridge Farm (with the stables and barn). This was deemed to be an ARS but no suitable places for nesting were observed. Fresh pellets have also been recorded at Elliscope Farm during monthly visits between July 2020 and March 2021. Surveys in the summer of 2021 confirmed barn owls were breeding on site. There are no previous records of barn owls at North Moor Farm.

4.2 Habitat Description

4.2.1 North Moor Farm lies 600 metres north of Nissan Manufacturing UK. The farm is surrounded by farmland, with a mixture of arable and pasture. Defunct overgrown hedgerows give the site some connectivity through to a small area of woodland 150 metres to the northeast, and the Usworth Burn, which lies 160 metres to the north. Land just 160 metres to the southeast is all being developed or has been developed as part of IAMP ONE. The land immediately surrounding the site has been managed as part of the mitigation area, with habitat creation such as wetlands (200 metres east) and scrub. The wider IAMP site includes additional arable fields, improved grassland, along with small pockets of woodland and the River Don flows through the site. Cottages and farm holdings are scattered across the site.

4.2.2 Outside of the IAMP boundary lies additional farmland to the north, and west, with housing beyond this. To the east is the A19 dual carriageway, with farmland and housing beyond this. The river corridor provides some foraging habitat, but this quickly becomes very urban. Limited woodland lies beyond the IAMP area, with small pockets of woodland within Nissan, along with some large ponds, and Barmston Lake lies south west of Nissan. The River Wear lies just over 2.6km to the south, which is tree lined. (Figures 1 and 2, Appendix A).

4.3 Internal/ External Survey

4.3.1 Full details of the findings of the building assessment can be found in Table 6 overleaf, and are the results are summarised in Table 4. Photographs can be found in Appendix B and the building plan shown is in Figure 3, Appendix A.

4.3.2 North Moor Farm includes a farmhouse, kennels, stables, and barns. There were a number of sheds and portacabins that included the cattery on site. These were a mixture of negligible (Building References 7 & 10) and low potential for bats (Building References 8 & 9), with fascia gaps present on two of the cattery

portacabins. The kennels (Building References 6) onsite were of wood construction and also negligible. A large corrugated metal barn (Building Reference 2) on site was an indoor area. The adjacent stables to the west were wooden (Building Reference 1), with a second barn (Building Reference 4) constructed of corrugated metal and open fronted, with some walls/roof missing. All of these were also assessed as negligible. A second set of brick/breezeblock stables (Building Reference 3) is present to the east of the farm complex. Gaps were present along the wall top of these stables, which were assessed as having low potential for bats. The farmhouse (Building Reference 5) itself was assessed as moderate potential. It is a single storey stone building with flat concrete tiles on the roof. Gaps were present in the ridge, in the soffits and at the gable. Table 5 below provides guidance on assigning a risk level to a building (BCT 2016).

4.3.3 A Building reference 2, the former indoor arena is an active roost site (ARS) for barn owls, but was deemed to not have anywhere suitable for nesting. Building 3 is also deemed to be a ARS because of the presence of pellets.

4.3.4 Overall, the buildings had deteriorated since the 2018 surveys due to the farm becoming unoccupied, and a number of storms had caused some damage. Over the summer of 2022 arson in Building 2 resulted in the loss of some of the wall panels on this barn.

4.3.5 **Table 4** Risk Assessment Results

Building Reference		Bat Potential Risk Level	Barn Owl Signs
1	Wooden Stables	Negligible	None.
2	Indoor Horse Arena	Negligible	Barn owl seen inside and pellets.
3	Brick & Breezeblock Stables	Low	Barn owl pellet in north end of western section.
4	Open Front Barn	Negligible	None.
5	Farmhouse	Moderate	None.
6	Wooden Sheds and Kennels	Negligible	None.
7	Portacabin Cattery	Negligible	None.
8	Portacabin Cattery	Low	None.
9	Portacabin Cattery	Low	None
10	Metal Storage Container	Negligible	None.

4.3.6 **Table 5** Guidelines for assessing the potential suitability of proposed development sites for bats. (BCT, 2016).

* For example temperature, humidity, height above ground, light levels, levels of disturbance

Suitability	Description Roosting Habitats	Commuting and Foraging Habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	A structure 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). A tree of sufficient size and age to contain PRF's but with none seen from the ground or features seen only with very limited roosting potential.	Habitat that could be used by small numbers of commuting bat such as a gappy hedgerow or vegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in parkland situation) or a patch of scrub.
Moderate	A structure or 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 – irrespective of species conservation status).	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure or 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.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees, and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broad-leaved woodland, tree lines watercourses, and grazed parkland. Site is close to and connected to known roosts.

4.3.7 Table 6 Building Structural Features.

Building Code (Figure 3, Appendix A)	Building construction details	Structural features present						Potential bat access and roosting points	Internal features	Evidence	Risk Assigned
		Gables	Barge boards	Soffit Boards	Fascia Boards	Flashing	Roof void				
1 **Photograph 1, Appendix B**	Wooden stables Corrugated metal and plastic roof	X	X	X	X	X	X	None	None	None.	Negligible
2 **Photographs 1-2, Appendix B**	Indoor horse arena Corrugated metal walls and roof.	✓	X	X	X	X	X	None	None	Barn owl seen within barn and pellets present	Negligible for bats. No suitable features for nesting barn owls, only roosting features.
3 **Photographs 3 – 5, Appendix B**	Single story brick and breezeblock stables and outhouses. Flat corrugated metal roof. Part rendered. Small storeroom to southwest corner with window and door and wooden fascia.	X	X	X	✓	X	X	Large sections of roof missing throughout western section. Gaps between wall top, and corrugated roof.	Wooden boards on ceiling, large gap between these and roof – more suited to barn owls than bats.	Barn owl pellet in northern end of western section.	Low for bats. Confirmed used by barn owls through part of the western section.
4 **Photograph 6, Appendix B**	Open front barn. Most walls are missing. Corrugated metal. Much smaller in size compared with 2018.	X	X	X	X	X	X	None.	None noted.	None.	Negligible

Building Code (Figure 3, Appendix A)	Building construction details	Structural features present						Potential bat access and roosting points	Internal features	Evidence	Risk Assigned
		Gables	Barge boards	Soffit Boards	Fascia Boards	Flashing	Roof void				
5 Photographs 7 – 9, Appendix B	Stone built, single storey farm house. Pitched flat concrete tile roof. Wooden soffits and fascias. Plastic bargeboards. Flat felt roof extension to the east. Glass conservatory to the south – now just a shell. Wooden fascia.	✓	✓	✓	✓	X	✓	Large number of missing and loose tiles from recent storm damage. Gaps in ridge (south and north). Gaps under bargeboard and in the mortar at the gable end. Gaps in soffit on SE corner. Gaps under fascia on extension.	Large and open Felt in loft Gaps from outside due to storm damaged roof. Mice and rat droppings present.	None.	Moderate
6 Photograph 10, Appendix B	Wooden sheds & kennels, corrugated metal or flat felt roof. In poor condition with sections missing.	X	X	X	X	X	X	None.	None noted	None	Negligible
7 Photograph 11, Appendix B	Small portacabin cattery. Flat roof. Cage area in front.	X	X	X	X	X	X	None.	None.	None.	Negligible
8 Photographs 12 – 13, Appendix B	Portacabin cattery. Flat roof. Part corrugated roof. Plastic fascia.	X	X	X	✓	X	X	Gaps behind plastic fascia.	None.	None.	Low

Building Code (Figure 3, Appendix A)	Building construction details	Structural features present						Potential bat access and roosting points	Internal features	Evidence	Risk Assigned
		Gables	Barge boards	Soffit Boards	Fascia Boards	Flashing	Roof void				
9 Photographs 14 – 15, Appendix B	Portacabin cattery with entrance porch to the east. Flat roof. Plastic and wooden fascias.	X	X	X	✓	X	X	Gaps behind fascia.	None.	None.	Low
10 Photographs 15 – 16, Appendix B	Metal storage container. Flat roof.	X	X	X	X	X	X	None.	None.	None.	Negligible.

4.4 Nocturnal Surveys

4.4.1 Two nocturnal surveys were carried out by WYG in 2014, followed by two nocturnal surveys in 2018 by DWS, and two additional updates in 2022 by DWS. The dates and surveyor details relating to the nocturnal surveys undertaken are given in Table 1-3. Weather conditions during the surveys were optimal, and appropriate ambient air temperatures and timings across all.

4.4.2 In summary, no roosts were recorded across any of the surveys. No barn owls were recorded during any of the nocturnal surveys.

4.4.3 **WYG 2014 Summary** - **Dusk Emergence Survey – 17th June 2014** (Figure 4a, Appendix A)

Location 1 – North-west corner of Building 5

The surveyor (Michelle Nesbitt) was positioned on the north-west corner of Building 5 and observed both the northern and western elevations. No bats were observed emerging from the building. The first bat was recorded at 22.24, 37 minutes after sunset; a common pipistrelle seen foraging at the south-west corner of Building 5. From 22.30 to 22.32 a common pipistrelle was recorded commuting from south of Building 5 and its garden, foraging in the field to the west of Building 5 then exiting the site again to the south. The last bat was recorded at 22.38, 51 minutes after sunset; a common pipistrelle commuting high over Building 5 from south-east to north-west. No other species of bat besides common pipistrelle were recorded at this location during the survey.

4.4.4 *Location 2 – North-east corner of Building 5*

The surveyor (Kirstin Aldous) was positioned on the north-east corner of Building 5 and observed both the northern and eastern elevations. No bats were observed emerging from the building. The first bat was recorded at 22.22, 35 minutes after sunset; a common pipistrelle recorded on the bat detector but not seen. A myotis sp. bat was recorded on the bat detector but not seen at 22.33, 54 minutes after sunset. The last bat was recorded at 22.55, 1 hour 8 minutes after sunset; a common pipistrelle which was recorded on the bat detector but not seen.

4.4.5 *Location 3 – South of Building 5*

The surveyor (Katherine Knox) was positioned to the south of Building 5 and observed the southern elevation of the building. No bats were observed emerging from the building. The first bat was recorded at 22.21, 36 minutes after sunset; a pipistrelle sp. bat commuting past Building 5 in the distance which was not seen. At 22.30 until 22.33, 22.41 until 22.42, 22.48 until 22.49, 22.54 and 23.04 a

common pipistrelle bat was observed foraging over the lawn at the south of Building 5, each time entering and leaving the site from the south or south-east. The last bat was recorded at 23.04, 1 hour and 17 minutes after sunset. No other species of bat besides common pipistrelle were recorded at this location during the survey.

4.4.6 **WYG 2014 Summary** - **Dawn Re-entry Survey – 16th July 2014** Figure 4a, Appendix A)

Location 1 – North-west corner of Building 5

The surveyor (Michelle Nesbitt) was positioned on the north-west corner of Building 5 and observed both the northern and western elevations. No bats were observed re-entering the building. No bats were recorded during the survey at this location.

4.4.7 *Location 2 – North-east corner of Building 5*

The surveyor (Martin Fagan) was positioned on the north-east corner of Building 5 and observed both the northern and eastern elevations. No bats were observed re-entering the building. The first bat was recorded at 02.54, 1 hour 55 minutes before sunrise; a common pipistrelle recorded on the bat detector but not seen, with another being recorded but not seen at 03.10. A soprano pipistrelle was recorded on the bat detector but not seen at 03.20, 1 hour 29 minutes before sunrise. Between 03.33 and 03.52 common pipistrelle was recorded several times but not seen, except for one occasion at 03.45 where a common pipistrelle was observed foraging near the stables (Building 3). The last bat was recorded at 03.52, 57 minutes before sunrise; a common pipistrelle which was recorded on the bat detector but not seen.

4.4.8 *Location 3 – South of Building 5*

The surveyor (Katherine Knox) was positioned to the south of Building 5 and observed the southern elevation of the building. No bats were observed re-entering the building. The first bat was recorded at 02.53, 1 hour 56 minutes before sunrise; a common pipistrelle recorded on the bat detector but not seen. Between 03.10 and 03.51, several common pipistrelle bats were recorded, the majority of which were recorded but not seen. The common pipistrelles which were seen were observed commuting past the southern side of Building 5 from north-east to south-west (03.11, 03.32, 03.44, 03.46, 03.48), or from south-west to north-east (03.33, 03.44), occasionally foraging over the lawn and hedgerows to the south of Building 5. A soprano pipistrelle was recorded on the bat detector but not seen at 03.20, 1 hour 29 minutes before sunrise. The last bats were recorded at 03.51, 58 minutes

before sunrise; two common pipistrelles which were observed foraging above the lawn at the south of Building 5 before exiting site to the south-west.

4.4.9 **DWS 2018 Summary - 2nd July 2018, Dusk Emergence Survey: Building 5.** (Figure 4b, Appendix A)

Low levels of activity were recorded during this survey, with almost all activity attributed to common pipistrelles, with a single unknown species of *Myotis* was also recorded. All activity was recorded as either foraging or commuting and no bats were seen emerging from the property.

4.4.10 **DWS 2018 Summary - 7th August 2018, Dawn Return Survey***:* Building 5. (Figure 4c, Appendix A)

Low levels of activity were recorded during this survey, with small numbers of common pipistrelles recorded commuting through the survey area. No bat roosts were recorded in the cottage.

4.4.11 **DWS 2022 Summary –** 5th May 2022, Dusk Emergence Survey: Buildings 5, 8 & 9. (Figure 4d, Appendix A)

Very low levels of activity were recorded around the cattery buildings (Buildings 8 & 9), with a maximum of 6 bat passes. Much higher levels of activity were recorded around the farmhouse (Building 5), with up to 38 bat passes recorded. This was largely due to a long period of constant foraging within the garden of the cottage by common pipistrelle bats. All bats were recorded foraging and commuting in the survey area, and no roosts were recorded in any of the buildings on site. All activity on site could be attributed to common pipistrelles

4.4.12 **DWS 2022 Summary -** 13th June 2022, Dusk Emergence Survey: Buildings 3 & 5 (Figure 4e, Appendix A)

Low levels of activity were recorded during this survey, with slightly higher levels from the surveyor positioned outside of the farm complex near a defunct hedgerow to the northeast. Much less foraging activity was observed, with nearly all bats recorded as just commuting through the survey area. Nearly all activity could be attributed to common pipistrelles, with one noctule pass and one soprano pipistrelle pass also recorded. No bat roosts were recorded in any of the buildings on site.

5.0 IMPACT ASSESSMENT

5.1 Constraints to Survey

5.1.1 There were no constraints to the surveys undertaken.

5.2 Description of Development

5.2.1 The farm is derelict and needs to be demolished due to ongoing security costs. The site may also be subject to future proposals.

5.3 Legislation

5.3.1 ***Bats***

All bat species and their roosts in Britain are protected under the Wildlife and Countryside Act 1981 (as amended) (WCA) through their inclusion on Schedule 5. The implementation of the Countryside and Rights of Way Act 2000 (CRoW 2000) has amended the WCA 1981 to include 'reckless' damage to, or destruction of a roost, and disturbance of bats whilst in a roost.

5.3.2 Bats are also included on Annex IV of Council Directive 92/43/EEC of 21st May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (known as the Habitats Directive). As a result of the United Kingdom ratifying this directive, all British bats are protected under The Conservation of Habitats and Species Regulations 2017 (as amended). Combined, these make it an offence to kill, injure, capture or disturb bats or obstruct access to, damage or destroy roosts.

5.3.3 Paragraph 43 of the Regulations states: A person who deliberately disturbs wild animals of any such (European Protected) species, is guilty of an offence. For the purposes of this paragraph, the disturbance of animals includes in particular any disturbance which is likely: -

a. to impair their ability-
    i. To survive, to breed or reproduce, or to rear or nurture their young, or
    ii. In the case of animals of a hibernating or migratory species, to hibernate or migrate; or
b. to affect significantly the local distribution or abundance of the species to which they belong.

5.3.4 Under the law, a bat roost is any structure or place used for shelter or protection e.g. a building, bridge or tree. Bats use many roost sites and feeding areas throughout the year and they tend to re-use the same roosts for generations.

5.3.5 *Birds*

Wildlife and Countryside Act 1981 (as amended) (WCA) provides protection for Barn Owls and most other wild bird species in England, Scotland and Wales. The eggs and nests of most bird species are protected. Specifically, under Part 1, Section 1 (1), it is an offence intentionally to:

a) Kill, injure or take any* wild bird

b) take, damage or destroy the nest of any* wild bird while that nest is in use or being built

c) take or destroy an egg of any* wild bird

*a small number of species are excluded under Schedule 2 of the Act

5.3.6 Barn Owls are listed in Schedule 1 of the Wildlife and Countryside Act 1981 (WCA 1981) (as amended), therefore on top of the legal protection afforded all nesting birds it is also an offence to disturb a Barn Owl, except under licence, 'while it is building a nest or is in, on or near a nest that is containing eggs or young' or to 'disturb dependent young of such a bird'.

5.4 National Planning Policy Framework

5.4.1 The NPPF outlines government planning policies and how they should be applied within local authorities. The framework places an emphasis on sustainable development, encouraging the re-use of land that has previously been developed over using land that has a higher environmental value and by minimising impacts on biodiversity. The NPPF states that developments should aim to conserve or enhance biodiversity and encourages opportunities to incorporate biodiversity in and around developments.

5.5 UK and Local Biodiversity Action Plans (BAP)

5.5.1 Noctule, soprano pipistrelle and brown long-eared bats are listed as UK priority species (UKBAP, 2007). Actions for conservation effort have been identified for each of these species, which include consideration of the effects of land use, the promotion of habitat creation, enhancement and improvement and the protection of roosts via the implementation of legislation and policy.

5.5.2 Sunderland has a generic local BAP that aims to cover all species of bats recorded within Sunderland as species of conservation concern (DBAP, 2006). Barn owls are also a local BAP species (DBAP 2006).

5.6 Natural Environment and Rural Communities (NERC) Act

5.6.1 The Natural Environment and Rural Communities (NERC) Act (2006) identifies a list of habitats and species which are of principal importance for the conservation of biodiversity in England. Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decisionmakers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the NERC Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions. The UKBAP species list was used to create the S41 list of priority species. Several species of bat relevant to Sunderland are listed as Species of Principal Importance under Section 41 of the NERC Act (2006) including soprano pipistrelle, and brown long-eared.

5.7 Legal Implications of Proposed Development

5.7.1 No bats were found to be roosting on site, therefore the proposed demolition is not expected to contravene legislation relating to bats and their roosts

5.7.2 All British birds, their nests and eggs are protected in law under Part 1 of the Wildlife and Countryside Act 1981 (WCA 1981) (as amended). Therefore, the proposed works would result in an offence being committed under the Wildlife and Countryside Act 1981 (WCA 1981) (as amended), if nests were destroyed while in use. Barn owls are listed under Schedule 1, giving them a higher level of protection and therefore an offence would also be committed if barn owls were disturbed while building a nest or on or near a nest that is containing eggs or young. It is also an offence to disturb dependent young of such a bird. The site was not being used for breeding at the time of the survey, and lacked suitable nesting sites for this species.

5.8 Likely Impact

5.8.1 The likely impact of the proposed works is evaluated against criteria in Table 7 below which is based on NATA (New approach to appraisal) (Byron, 2000). The evaluation is based on no mitigation works being implemented.

5.8.2 **Table 7** Impact Assessment

Impact Magnitude	**Nature Conservation Importance**				
	Negligible	Local	County	National	European
Beneficial Effect	Non-Significant	Non-Significant	Non-Significant	Non-Significant	Non-Significant
Nil Effect	Non-Significant	Non-Significant	Non-Significant	Non-Significant	Non-Significant
Minor (short term or reversible effects)	Non-Significant	Non-Significant	Slight	Moderate	Moderate
Moderate (deterioration of feature)	Non-Significant	Slight	Moderate	Severe	Severe
High (loss of feature)	Non-Significant	Slight	Moderate	Severe	Severe

5.8.3 Nature conservation importance is based on:

European

- Habitats which are listed in Annexe 1 of the Habitats Directive or are included as candidate or proposed Special Areas of Conservation
- Species which are listed under Schedule 2 of the Habitats Directive and form a population which would qualify the site for consideration as a Special Protection Area (SPA) or SAC.

National

- Habitats which meet the criteria for designation of or occur within a Site of Special Scientific Interest (SSSI)
- Species which are protected under national wildlife legislation such as the Wildlife and Countryside Act or are listed in a national Red Data Book or that are part of a population or assemblage that would meet the criteria for the site being designated as a SSSI.

County

- Habitats that are rare or uncommon in the County that would meet the criteria or are included in a second tier nature conservation site (SINC/LWS) or which for part of a local Biodiversity Action Plan (BAP) or Habitat Action Plan (HAP).

- Species that are rare or uncommon within the County or form part of a population or assemblage that would meet the criteria for inclusion in a SINC.

Local

- Habitats that are uncommon or threatened in the local area.
- Species that are uncommon or threatened in the local area.

Negligible

- Habitats or species that do not fall into any of the categories listed above.

5.8.4 Bats

As no roosting bats were identified utilising the buildings during the surveys, it is deemed that the proposed works will not result in the disturbance, modification or loss of any bat roosts, and will therefore have a non-significant impact upon local bat populations.

5.8.5 Barn Owls

Short-term impacts: disturbance

Without appropriate mitigation and method statement, potential impacts on barn owls at North Moor Farm will be from:

- The potential killing/ injuring of individual barn owls during the works.
- Disturbance of barn owls/ nesting barn owls during the works.
- Potential abandonment of nest/eggs/chicks through disturbance.

5.8.6 *Long-term impacts*

The proposed works to demolish the buildings will result in the loss of 2 buildings being used by barn owls. These buildings are not being used for nesting and so the loss would result in a slight impact at a local level.

5.8.15 *Cumulative Impacts*

Barn owls were also present within West Moor Farm, Elliscope Farm and Hylton Bridge Farm. The latter will be retained, but the former two have been demolished. Elliscope farm lies 900 metres away, and was found to have a breeding pair of barn owls during the 2021 surveys. This was surveyed the same night as West Moor Farm (600 metres south) and Hylton Bridge Farm (500 metres to the northeast), on the 3rd June 2021. The former recorded one solitary barn owl, with no barn owls seen at Hylton Bridge. In total 3 barn owls appeared to be using the wider IAMP site in 2021. Loss of the buildings at North Moor Farm, in combination

with West Moor and Elliscope farms, will result in a moderate impact on barn owls in the absence of mitigation.

6.0 AVOIDANCE, COMPENSATION AND MITIGATION MEASURES

6.0.1 The following section outlines the measures required to avoid, minimise or compensate for the impacts detailed in section 5 above by applying the mitigation hierarchy in accordance with the NPPF paragraph 118 which states:

6.0.2 'If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort compensated for, then planning permission should be refused.'

6.0.3 Table 8 below shows the recommended avoidance, mitigation and compensation that should minimise the impacts on the ecological receptors described above.

Table 8 Avoidance, compensation and mitigation measures

Ecological Receptor	Likely impacts during construction and post construction	Avoidance, Mitigation and Compensation Measures	Residual Effects
Bats	No impact.	The proposed demolition will not result in the loss of bat roosts.	None.
Barn Owls	Moderate negative impact due to the loss of 2 buildings, being used by barn owls in combination with the loss of other farms in the local area that are also being used by barn owls.	Retention of the buildings on site is not possible due to the long-term maintenance and security costs associated with retaining any of the buildings on site. The arena (Building 2) suffered from arson damage in the summer 2022 which resulted in the deterioration of this building. A dead barn owl was also reported within this building (this report was unconfirmed by DWS). A range of mitigation has already been installed within the area. Two boxes have been installed within Hylton Bridge Farm stables (500 metres away). Barn owl pellets have been found within these buildings and the addition of boxes will provide additional nesting opportunities. These buildings are due to be retained. A third box has been erected in a tree located within the ELMA mitigation area (400 metres away) (Figure 5). The tree selected is in the open, mature, and forked, thus ideal for a barn owl box. Mitigation for the loss of Elliscope Farm includes three barn owl boxes	Mitigation proposed will ensure long term provision for barn owls within the area, including suitable features for breeding. Overall, there should be no long-term negative effects.

		in trees within close proximity to the farm and a wildlife tower in the field to the south of the farm. Monitoring in 2022 found barn owls to be breeding within a box at Elliscope Farm, and a box within Hylton Bridge, as well as the wildlife tower, were all showing signs of regular use (DWS 2022). Prior to the demolition of all buildings on site a check will be carried out to ensure the demolition will not harm or disturb breeding barn owls. This is deemed highly unlikely.	

7.0 RECOMMENDATIONS

7.1 Survey Conclusions

7.1.1 The 2022 surveys were updates, with surveys also carried out in 2015 (WYG 2015), and 2018 (DWS, 2018) and these reports should be read in conjunction with this one, but are summarised within this report. No bat roosts were recorded in any of the buildings on site.

7.1.2 Checks for barn owls were carried out at the same time as the bat risk assessment. No previous surveys recorded barn owls on site. The 2022 survey identified two Active Roosting Sites Buildings 2 & 3. There was not deemed to be any suitable locations for breeding and no activity was recorded on the nocturnal survey.

7.1.3 Arson in the summer of 2022 has reduced the suitability of Building 2 for barn owls due to damage to some of the walls and door. Buildings 1, 4 and 6-10 were all demolished/removed from site after the May 2022 survey. Part of Building 3 was also demolished. Only the farmhouse (Building 5), Building 2 and most of Building 3 remain on site.

7.2 Mitigation and Enhancement Measures – Barn Owls

7.2.1 Demolition will result in the loss of barns being used as ARS. Barn owls are Schedule 1 species, as such it is an offence to disturb a barn owl while ‘it is building a nest or is in, on or near a nest that is containing eggs or young' or to 'disturb dependent young of such a bird'. Consequently, prior to demolition the site must be checked for nesting barn owls by a suitably licenced ecologist. No barns will be demolished while barns owls are showing any breeding behaviour on site, including nest buildings or while young are dependant. This is deemed highly unlikely due to the lack of suitable nesting features on site.

7.2.2 Three barn owl boxes have already been erected nearby; one in a mature tree a short distance away, and two within Hylton Bridge Farm (stables) (Figure 5). Provision is also provided at Elliscope Farm 900 metres to the northeast, with three barn owl boxes in trees and a wildlife tower.

7.3 Monitoring

7.3.1 Adhering to the Policy EN2 of the IAMP Area Action Plan (2017), monitoring will be undertaken on all the mitigation proposed above.

- All boxes will be checked annually to ensure they are intact and secure. Any lost or damaged boxes will be replaced.
- Monitoring surveys will be carried out every three years for the next twenty years. The first took place in 2022 (DWS 2022). The next will take place in 2025. These surveys will include checks of the barn owl boxes by a licenced barn owl ecologist.
- The barn owl boxes checks are weather dependant. June should be avoided because they are more susceptible to disturbance around this time. Bad weather early season may delay this, and this should be taken into account. Nocturnal surveys are an alternative way to monitor the boxes on site.

8.0 REFERENCES

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APPENDIX A

Figures

Legend

★ Site Location

DWS ECOLOGICAL SERVICES

Rainton Meadows
Chilton Moor
Houghton-le-Spring
Tyne and Wear
DH4 6PU

info@dwsecology.co.uk
www.dwsecology.co.uk

Project	IAMP
Title	Location Plan
Client	IAMP LLP
Date	25/10/2022
Ref	Figure 1

Legend

★ Site Location

DWS ECOLOGICAL SERVICES

Rainton Meadows
Chilton Moor
Houghton-le-Spring
Tyne and Wear
DH4 6PU

info@dwsecology.co.uk
www.dwsecology.co.uk

Project	IAMP
Title	Aerial Plan
Client	IAMP LLP
Date	25/10/2022
Ref	Figure 2

Legend

- Low
- Moderate
- Negligible
- Barn Owl Pellets
- Barn Owl Seen

DWS ECOLOGICAL SERVICES

Rainton Meadows
Chilton Moor
Houghton-le-Spring
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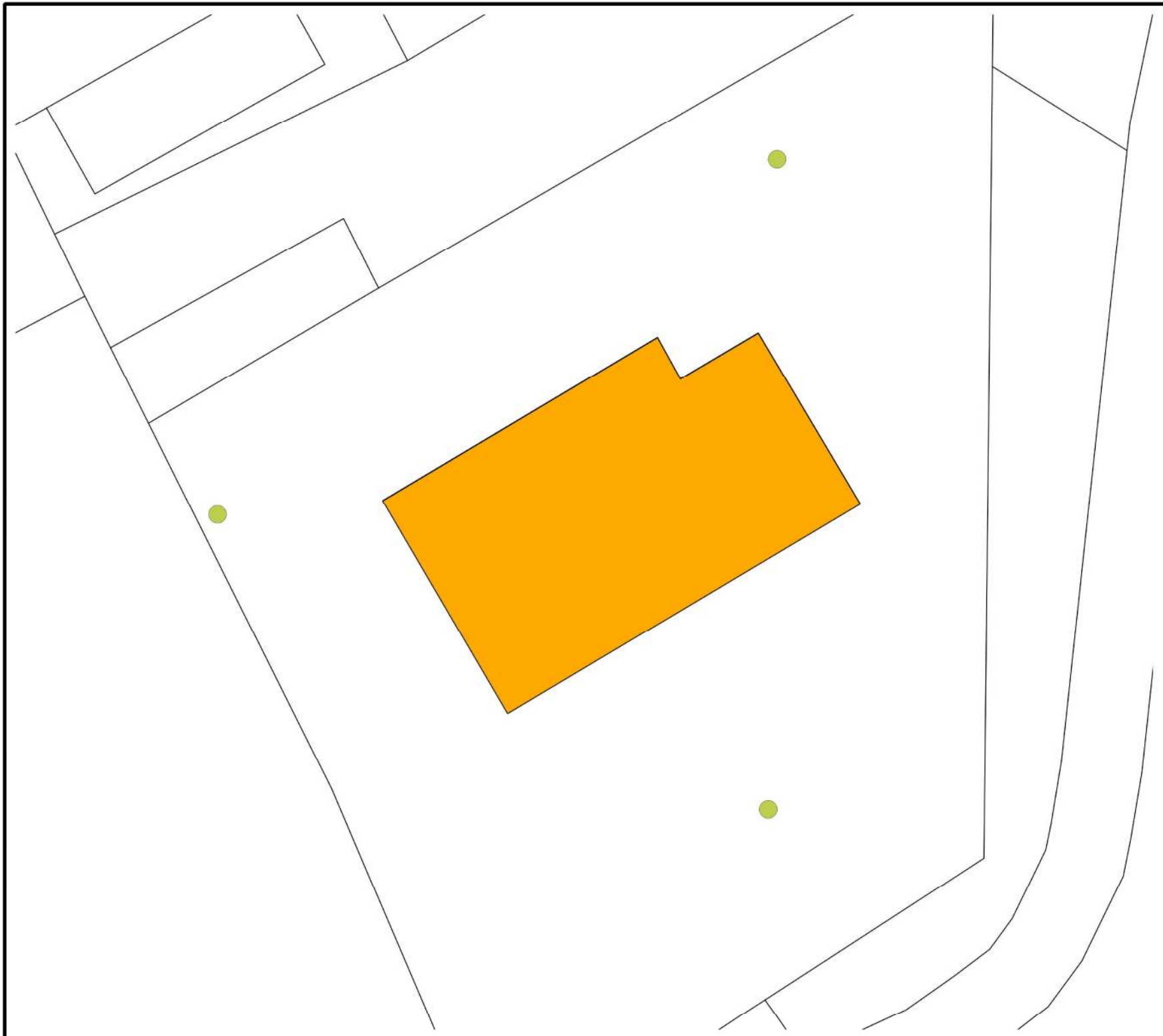
Project	North Moor Farm
Title	Preliminary Roost Assessment Results
Client	IAMP LLP
Date	25/10/2022
Ref	Figure 3



Legend

- Building Surveyed
- Surveyor Locations

DWS ECOLOGICAL SERVICES

Rainton Meadows
Chilton Moor
Houghton-le-Spring
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DH4 6PU

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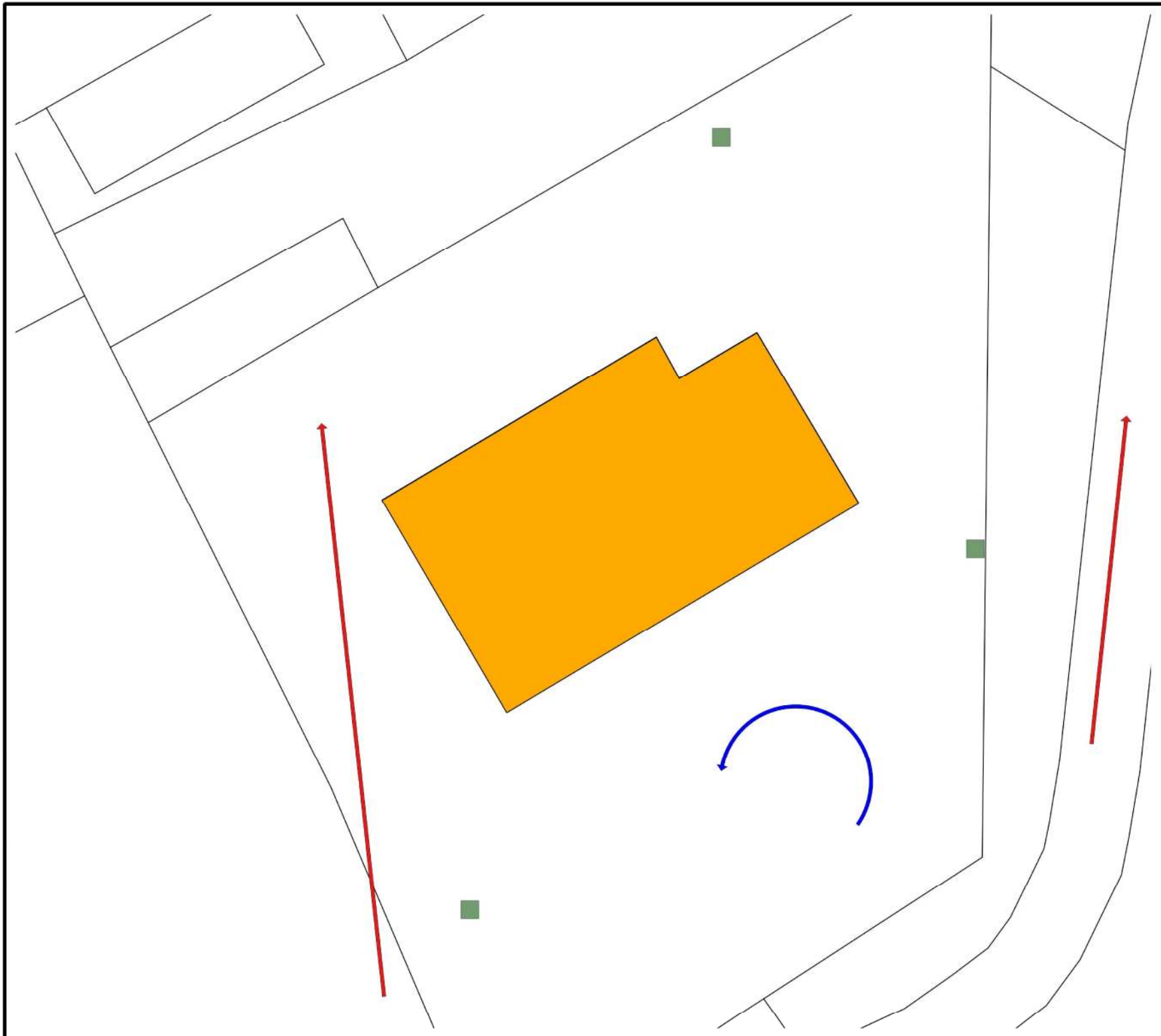
Project	North Moor Farm
Title	Surveyor Locations WYG 2014 Surveys
Client	IAMP LLP
Date	25/10/2022
Ref	Figure 4a



Legend

- Building Surveyed
- Surveyor Positions
- Commuting Routes
- Foraging Activity

DWS ECOLOGICAL SERVICES

Rainton Meadows
Chilton Moor
Houghton-le-Spring
Tyne and Wear
DH4 6PU

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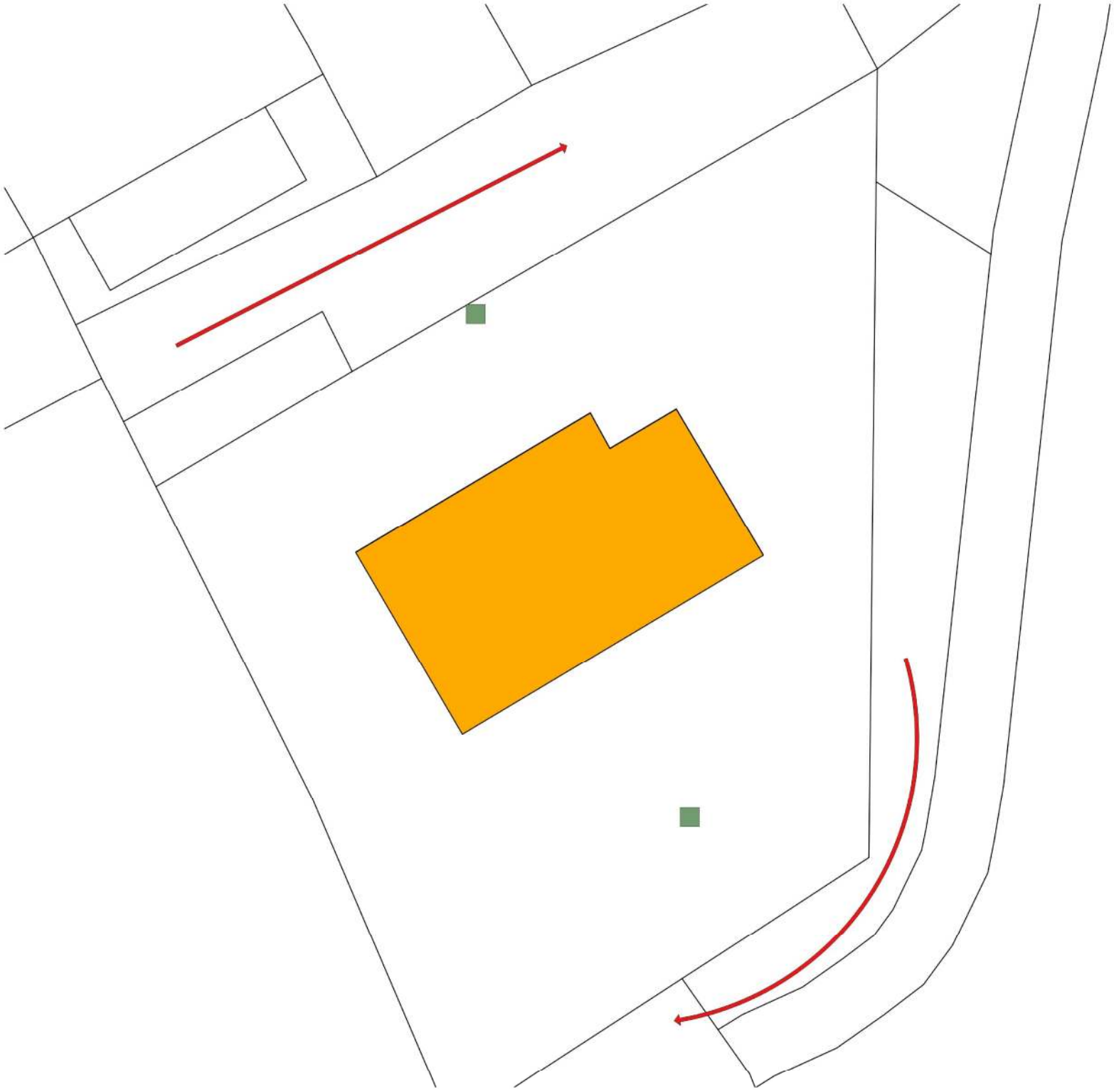
Project	North Moor Farm
Title	Survey Results 02/07/2018 Dusk DWS
Client	IAMP LLP
Date	25/10/2022
Ref	Figure 4b



Legend

- Building Surveyed
- Surveyor Positions
- Commuting Routes

DWS ECOLOGICAL SERVICES

Rainton Meadows
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Project	North Moor Farm
Title	Survey Results 07/08/2018 Dawn DWS
Client	IAMP LLP
Date	25/10/2022
Ref	Figure 4c

Legend

- Building Surveyed
- Surveyor Positions
- Commuting Routes
- Foraging Activity

DWS ECOLOGICAL SERVICES

Rainton Meadows
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Project	North Moor Farm
Title	Survey Results 05/05/2022 Dusk DWS
Client	IAMP LLP
Date	25/10/2022
Ref	Figure 4d

Legend

- Building Surveyed
- Surveyor Positions
- Commuting Routes

DWS ECOLOGICAL SERVICES

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Project	North Moor Farm
Title	Survey Results 13/06/2022 Dusk DWS
Client	IAMP LLP
Date	25/10/2022
Ref	Figure 4e

Legend

★ Barn Owl Box Locations

DWS ECOLOGICAL SERVICES

Rainton Meadows
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Houghton-le-Spring
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Project	North Moor Farm
Title	Mitigation Plan
Client	IAMP LLP
Date	25/10/2022
Ref	Figure 5

APPENDIX B

Selected Photographs

Photograph 1 Building reference 1, Wooden Stables, and Building refence 2 metal barn indoor arena.

Photograph 2 Building reference 2, internal.

Photograph 3 Building Reference 3, stables.

Photograph 4 Building Reference 3, stables.

Photograph 5 Building Reference 3 internal where barn owl pellets were found.

Photograph 6 Building Reference 4.

Photograph 7 Building Reference 5, farmhouse.

Photograph 8 Building Reference 5.

Photograph 9 Building Reference 5 loft void.

Photograph 10 Building Reference 6, kennels.

Photograph 11 Building Reference 7.

Photograph 12 Building Reference 8.

Photograph 13 Building Reference 8.

Photograph 14 Building Reference 9 & 10.

Photograph 15 Building Reference 9.

Photograph 16 Building Reference 10.

Photograph 17 Example of camera footage from the end of the June 2022 survey.

APPENDIX C

Report Conditions

Durham Wildlife Services Ltd

REPORT CONDITIONS
North Moor Farm

This report is produced solely for the benefit of IAMP LLP and no liability is accepted for any reliance placed on it by any other party unless specifically agreed in writing otherwise.

Unless otherwise instructed any records collected will be submitted to the body holding environmental records for the area.

This report is prepared for the proposed uses stated in the report and should not be used in a different context without reference to Durham Wildlife Services Ltd. In time improved practices, fresh information or amended legislation may necessitate a re-assessment. Opinions and information provided in this report are on the basis of Durham Wildlife Services Ltd using due skill and care in the preparation of the report.

This report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections. Environmental conditions can vary and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times.

This report is limited to those aspects reported on, within the scope and limits agreed with the client under our appointment. It is necessarily restricted and no liability is accepted for any other aspect. It is based on the information sources indicated in the report. Some of the opinions are based on unconfirmed data and information and are presented as the best obtained within the scope for this report.

Reliance has been placed on the documents and information supplied to Durham Wildlife Services Ltd by others but no independent verification of these has been made and no warranty is given on them. No liability is accepted or warranty given in relation to the performance, reliability, standing etc of any products, services, organisations or companies referred to in this report.

Whilst skill and care have been used, no investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather related conditions.

Although care is taken to select monitoring and survey periods that are typical of the environmental conditions being measured, within the overall reporting programme constraints, measured conditions may not be fully representative of the actual conditions. Any predictive or modelling work, undertaken as part of the commission will be subject to limitations including the representativeness of data used by the model and the assumptions inherent within the approach used. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions.
The potential influence of our assessment and report on other aspects of any development or future planning requires evaluation by other involved parties.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental

issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. Durham Wildlife Services Ltd accept no liability for issues with performance arising from such factors.

February 2008