

Barn Owl Update Surveys 2023

ELMA ONE

July 2023

V1






**Durham Wildlife Services
Rainton Meadows
Chilton Moor
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Quality Control

Report Status: V1

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Update Barn Owl Survey Report 2023

ELMA ONE

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1.0 EXECUTIVE SUMMARY

- 1.0.1 Durham Wildlife Services (DWS) were commissioned by Lichfields on behalf of the IAMP LLP in June 2023 to undertake an update survey for barn owl across the ELMA ONE area and functionally linked land at the International Advanced Manufacturing Park (IAMP) site, land north of Nissan Car Manufacturing Plant, in Sunderland. The approximate National Grid Reference for the centre of the site is NZ 33302 59230.
- 1.0.2 Update surveys in the 2023 breeding season were undertaken to determine whether barn owls were still present and breeding within the area and determine how they may be using the ELMA 1 area and functionally linked land in the wider landscape.
- 1.0.3 As part of the wider IAMP development, compensation for barn owls was included in various areas of the landscape. This is as follows:
- Two boxes erected in the stables at Hylton Bridge
 - A box erected in a tree northwest of West Moor Farm (farm complex now demolished)
 - Three boxes in trees south of Elliscope Farm (farm complex now demolished)
 - A Wildlife Tower in the field south of Elliscope Farm.
- 1.0.4 In summary, a single hunting barn owl was identified during the activity survey in June 2023. This bird was observed hunting to the north of the mitigation pools and food carrying in the direction of the boxes and wildlife tower. A subsequent visit to check the nest boxes and wildlife tower in July 2023 found an adult roosting within the wildlife tower and at least 3 seemingly health chicks within the westernmost nest box.
- 1.0.5 Barn owl are a Schedule 1 species and works with potential to disturb actively nesting barn owls and their dependant young must be avoided during the typical nesting season (March – August). Barn owl have been recorded nesting in every month of the calendar year, and as such, pre-works checks by a licenced Ecologist must be undertaken even outside of the main nesting season.
- 1.0.6 Additionally, any works which may result in the loss of further foraging, roosting, and/or nesting habitat will require a site- and species-specific mitigation strategy designing to safeguard local barn owl populations

2.0 INTRODUCTION

2.1 Background

2.1.1 Durham Wildlife Services (DWS) were commissioned by Lichfields on behalf of the IAMP LLP in June 2023 to undertake an update survey for barn owl across the ELMA ONE area and functionally linked land at the International Advanced Manufacturing Park (IAMP) site, land north of Nissan Car Manufacturing Plant, in Sunderland. The approximate National Grid Reference for the centre of the site is NZ 33302 59230.

2.1.2 As part of the wider IAMP development, compensation for barn owls was included in various areas of the landscape. This is as follows:

- Two boxes erected in the stables at Hylton Bridge
- A box erected in a tree northwest of West Moor Farm (farm complex now demolished)
- Three boxes in trees south of Elliscope Farm (farm complex now demolished)
- A Wildlife Tower in the field south of Elliscope Farm.

2.2 Site Description

The site is a mixture of arable and pasture farmland, with small pockets of woodland, located to the north of the Nissan Car Manufacturing Plant, in Sunderland. Two watercourses flow across site, the River Don and into the River Don flows the Usworth Burn. The site also includes a number of farm steadings (some of which have been demolished), and cottages. The IAMP ONE development area and Nissan CMP lies immediately south and further farmland to the north and east (Figure 1, Appendix A).

2.3 Survey Objectives

2.3.1 Update surveys in the 2023 breeding season were undertaken to determine whether barn owls were still present and breeding within the area and determine how they may be using the ELMA 1 area and functionally linked land in the wider landscape.

3.0 METHODOLOGY

3.1 Survey Approach

3.3.1 The surveys were led by Sacha Elliott (NE Barn Owl Licence CL29/00411) and Barry Thompson (NE Barn Owl Licence 2022-10845-CL29-OWL) and were assisted by Laura Thompson. The dates and times are provided in Table 1 below:

Table 1: Barn Owl Survey Details

Date & Time	Survey Type	Weather	Personnel	Licence Number
19/06/2023 Sunset: 21:48 Start: 20:30 End: 23:00	Activity Survey	Dry Clear Visibility 1-2 wind 19°C/16°C	Sacha Elliott Laura Thompson	CL29/00411 Accredited Agent on NE Barn Owl Licence no. CL29/00411
21/07/2023 10:00 – 13:00	Nest Box Inspection via aerial tree climb		Barry Thompson Laura Thompson	2022-10845-CL29-OWL Accredited Agent on NE Barn Owl Licence no. CL29/00411

3.3.2 Activity Survey

A predetermined transect route, based on prior site knowledge, was walked across all accessible areas of the ELMA ONE and functionally linked land. Vantage points watches of key areas were utilised during the survey. Methods were adapted to fit site specific conditions from those recommended in *Gilbert et al* (2011). The survey began approximately 1-hour prior to sunset and lasted until all-natural light had faded. Observations of barn owl was recorded using a Samsung Tab Active Pro Tablet and Qfield GIS software for highly accurate recording. Behaviour (e.g., commuting, foraging, food carrying, perching etc) and direction of travel was recorded to form an assessment of site use by the species.

3.3.3 Nest Box Inspection

A nest box inspection was undertaken was a licensed and experienced tree climber in July 2023, avoiding the sensitive early breeding period (May – June) when

disturbance of nest location could lead to clutch abandonment. Evidence of use (feathers, pellets, eggs, chicks) was recorded for each box/tower inspected.

3.2 Surveyor Experience

3.2.1 Sacha Elliott (NE Barn Owl Licence no. CL29/00411)

Sacha is the lead ornithologist at Durham Wildlife Services and has been undertaking barn owl surveys professionally since 2015. Prior to this, Sacha assisted with monitoring and bird ringing schemes with both Northumberland Ringing Group and Cleveland Ringing Group. She has completed professional courses in relation to Barn Owl ecology, held by renowned species experts, including Colin Shawyer, to further her understanding of the species. Sacha is accomplished in survey design, field identification, and mitigation. Sacha currently holds a licence to survey barn owl for development purposes in England and Scotland.

3.2.2 Laura Thompson (Accredited Agent on NE Barn Owl Licence no. CL29/00411)

Laura first started working with barn owls whilst volunteering with Ambios on the TytoTagus project in Portugal, in 2012. Lauras work on this project involved working with experts to monitor known barn owl sites, including ringing and measuring barn owl chicks, as well as dissecting barn owl pellets to investigate prey differences in floodplain and non-floodplain habitats. In recent years Laura has assisted licenced barn owl Ecologists with survey effort, including checking of nest boxes. Through experience and her own study Laura can identify habitats which are likely to support barn owls as well as identifying potential roosting and nesting habitats. Laura is working towards her barn owl licence.

3.2.3 Barry Thompson (NE Barn Owl Licence no. 2022-10845-CL29-OWL)

Barry has been involved with surveying for barn owls for the past 5 years, largely as part of Ecological Clerk of Works. Barry is qualified to tree climb and has therefore assisted licenced Ecologists with checking barn owl boxes for habitation. In 2022 Barry completed the Barn Owl Trust's online course to assist with gaining his own licence and, along with a reference, was granted his barn owl licence. Since achieving a barn owl licence Barry has continued to carry out barn owl surveys and nest box checks without the need for a separate licenced ecologist. Through experience and the completion of the licence course Barry has a very good knowledge of barn owl ecology, including but not limited to identifying likely foraging and roosting/ nesting habitat, identifying individual barn owls and aging chicks, as well as how to behave with caution when around suspected barn owl roosts/ nests.

4.0 SURVEY RESULTS

4.1 2023 Update Surveys

- 4.1.1 In summary, a single hunting barn owl was identified during the activity survey in June 2023. This bird was observed hunting to the north of the mitigation pools and food carrying in the direction of the boxes and wildlife tower (Figure 3; Appendix A).
- 4.1.2 A subsequent visit to check the nest boxes and wildlife tower in July 2023 found an adult roosting within the wildlife tower and at least 3 seemingly healthy chicks within the westernmost nest box (Figure 4; Appendix A). The general location of the nest site and adult roost site is consistent with the monitoring survey results in previous years (DWS, 2022).
- 4.1.3 No evidence of use by barn owl was recorded across the other nest boxes in the area. Stock doves were actively nesting in one of the nest boxes located near the now demolished Elliscope Farm and another pair of stock doves were nesting within the nest box located to the north-west of the now demolished West Moor Farm.
- 4.1.4 Active development and landscape changes are occurring in the area which may limit where barn owls can forage. No foraging behaviour was observed across the main ELMA ONE area and adjacent land; however, suitable foraging habitat is still present, so it is likely that the species hunts the area on occasion.

5.0 IMPACT ASSESSMENT

5.1 Constraints to Survey

5.1.1 The surveys were undertaken at an appropriate time of the year and were timed to avoid the most sensitive period during the barn owl nesting cycle. As such, significant constraints were noted.

5.2 Legislation

5.2.1 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

5.2.2 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'.

5.3 National Planning Policy Framework

5.3.1 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.

5.4 UK and Local Biodiversity Action Plans (BAP)

- 5.4.1 Barn owls are a priority species and are listed on Local Biodiversity Action Plans where the aims are to encourage the increase of barn owl populations and conserve and increase their habitat (NEENP, 2023).

5.5 Natural Environment and Rural Communities (NERC) Act

- 5.5.1 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.

5.6 Legal Implications

- 5.6.1 Barn owl are a Schedule 1 species and works with potential to disturb actively nesting barn owls and their dependant young must be avoided during the typical nesting season (March – August). Barn owl have been recorded nesting in every month of the calendar year, and as such, pre-works checks by a licenced Ecologist must be undertaken even outside of the main nesting season.
- 5.6.2 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.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Survey Conclusions

6.1.1 Update surveys in the 2023 breeding season were undertaken to determine whether barn owls were still present and breeding within the area and determine how they may be using the ELMA 1 area and functionally linked land in the wider landscape.

6.1.2 As part of the wider IAMP development, compensation for barn owls was included in various areas of the landscape. This is as follows:

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6.1.5 Additionally, any works which may result in the loss of further foraging, roosting, and/or nesting habitat will require a site- and species-specific mitigation strategy designing to safeguard local barn owl populations.

7.0 REFERENCES

Barn Owl Trust (2012) *Barn Owl Conservation Handbook*, Pelagic Publishing

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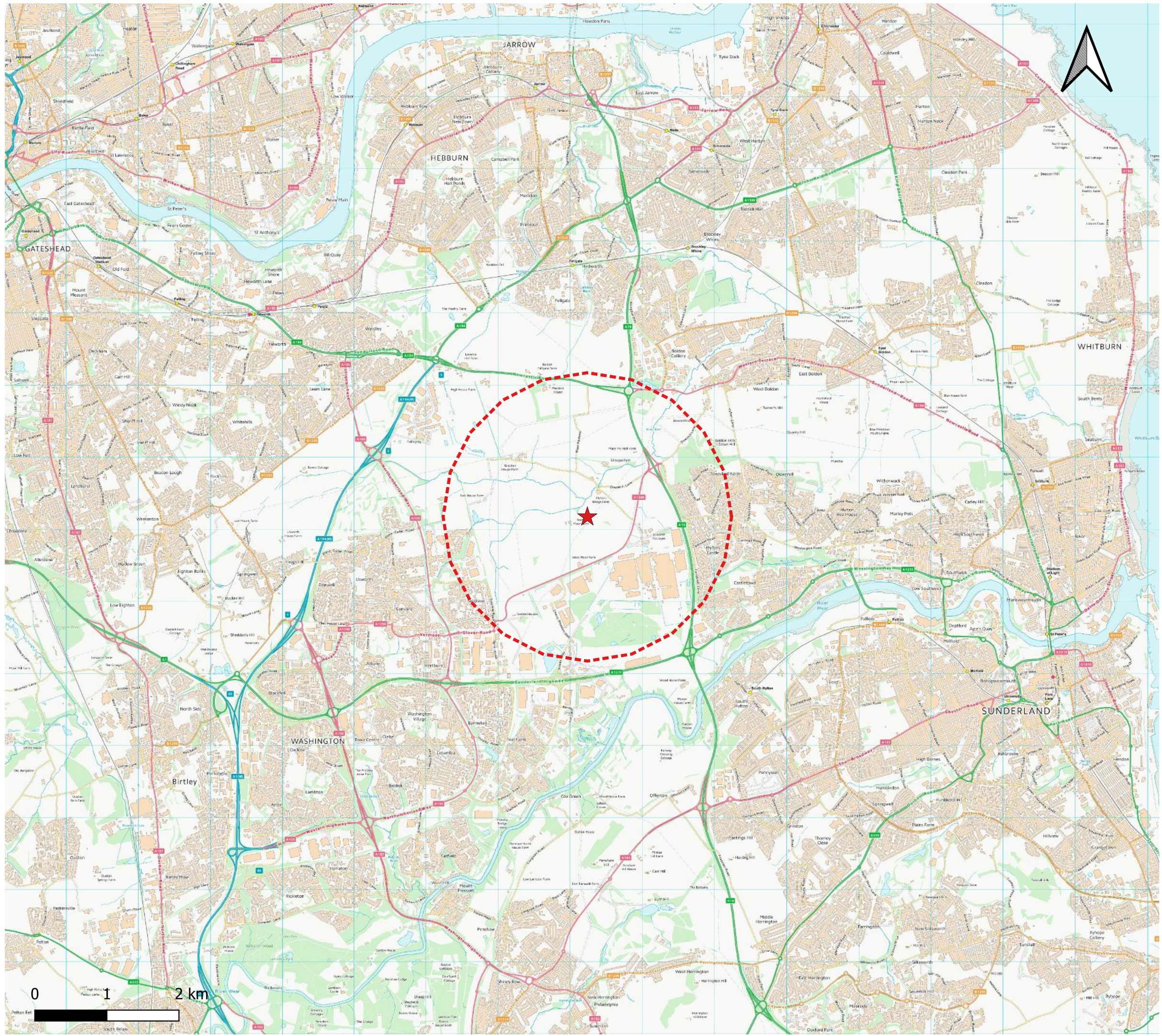
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NEENP (2023) <http://neenp.org.uk/natural-environment/>



UK BAP Priority Species (2007)<http://jncc.defra.gov.uk/page-5170>

APPENDIX A

Figures



Legend

-  2km Buffer
-  Site Location

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Project	ELMA ONE Barn Owl Update Surveys
Title	Location Plan
Client	Lichfields
Date	28/07/2023
Ref	Figure 1



Legend

★ Site Location

Google Satellite

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Google © 2023



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Project	ELMA ONE Barn Owl Update Surveys
Title	Habitat Aerial Plan
Client	Lichfields
Date	28/07/2023
Ref	Figure 2



Legend

- Foraging Barn Owl Flight Path
- + Barn Owl Perch

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Project	ELMA ONE Barn Owl Update Surveys
Title	Barn Owl Activity Plan
Client	Lichfields
Date	28/07/2023
Ref	Figure 3



Legend

- Approx. Barn Owl Box Locations
- Approx. Wildlife Tower Location
- Location of box with barn owl chicks
- Location of roosting adult barn owl within wildlife tower

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Project	ELMA ONE Barn Owl Update Surveys
Title	Barn Owl Next Box Check
Client	Lichfields
Date	28/07/2023
Ref	Figure 4

APPENDIX B
Report Conditions

Durham Wildlife Services Ltd

REPORT CONDITIONS ELMA ONE – Update Barn Owl Survey

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