

**LAND TO THE NORTH OF THE A4,  
THEALE**

**BADGER SURVEY**

A Report to: Panattoni c/o Turley

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## REPORT VERIFICATION AND DECLARATION OF COMPLIANCE

This study has been undertaken in accordance with British Standard 42020:2013 "Biodiversity, Code of practice for planning and development".

Report Version	Date	Completed by:	Checked by:	Approved by:
Final	17/09/2019	Penelope Rees (Senior Ecological Consultant)	Tom Docker MCIEEM (Associate Director)	David Smith (Ecology and Landscape Director)
Revision A	12/12/2019	Charlotte Page BSc (Hons) (Ecological Project Officer)	Tom Docker MCIEEM (Associate Director)	David Smith (Ecology and Landscape Director)

The information which we have prepared is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

### DISCLAIMER

The contents of this report are the responsibility of Middlemarch Environmental Ltd. It should be noted that, whilst every effort is made to meet the client's brief, no site investigation can ensure complete assessment or prediction of the natural environment.

Middlemarch Environmental Ltd accepts no responsibility or liability for any use that is made of this document other than by the client for the purposes for which it was originally commissioned and prepared.

### VALIDITY OF DATA

The findings of this study are valid for a period of 18 months from the date of survey. If works have not commenced by this date, an updated site visit should be carried out by a suitably qualified ecologist to assess any changes in the habitats present on site, and to inform a review of the conclusions and recommendations made.

### REPORT CONFIDENTIALITY

For reasons of animal welfare and in accordance with best ecological practice, the contents of this report are confidential and should not be made available to the public.

## NON-TECHNICAL SUMMARY

In August 2019 Panattoni c/o Turley commissioned Middlemarch Environmental Ltd to undertake a survey for badger *Meles Meles* at the Land to the North of the A4 in Theale. This assessment is required to inform a planning application associated with the construction of an employment facility, with associated access infrastructure, drainage and landscaping. The purpose of this survey was to determine the presence/absence of evidence of badgers on and adjacent to the site.

A habitat assessment and presence/absence survey was undertaken on 11th September 2019 in order to identify the suitability of the site for use by foraging and sett building badgers and to record any signs of badger activity, such as setts, snuffle holes, latrines or footprints.

The site supports a range of habitats comprising a section of broadleaved woodland, scrub, hedgerows, semi-improved grassland and tall ruderal providing some opportunities for foraging. Areas of grassland within the site are likely to provide a source of earthworms, a food source favoured by badger. The site does not offer any suitable habitat for sett building, however, areas of broadleaved woodland are present adjacent to the site boundaries which provide suitable although limited habitat for sett building. The refuge and foraging opportunities provided by the woodland and scrub on site means that badgers may use the site to forage opportunistically.

No signs of badger or badger setts were identified within the site and the immediate surrounding landscape, therefore no impacts to badgers are anticipated as a result of the works.

As no evidence of badger activity was found on site, no further survey or mitigation works with regard to these animals are required at this stage. However, the following recommendations have been made:

- R1** Any excavations on site should either be covered at night, or fitted with suitable mammal ramps in order to prevent badgers, or any other mammals, from becoming trapped. Any open pipework with an outside diameter of greater than 150mm must be covered at the end of each work day to prevent badgers entering/becoming trapped.
  
- R2** If no works have commenced within 18 months then an updated badger survey must be carried out. If any excavations are discovered during the works that suggest the presence of badgers works should cease and a suitably experienced ecologist contacted for advice.

## CONTENTS

<b>1. INTRODUCTION</b> .....	<b>4</b>
1.1 PROJECT BACKGROUND .....	4
1.2 DEVELOPMENT SITE DESCRIPTION AND CONTEXT .....	4
1.3 DOCUMENTATION PROVIDED.....	4
<b>2. METHODOLOGY</b> .....	<b>5</b>
2.1 DESK STUDY .....	5
2.2 HABITAT ASSESSMENT.....	5
2.3 PRESENCE/ABSENCE SURVEY.....	5
<b>3. DESK STUDY RESULTS</b> .....	<b>6</b>
3.1 BIOLOGICAL RECORDS.....	6
<b>4. RESULTS</b> .....	<b>7</b>
4.1 INTRODUCTION .....	7
4.2 SURVEY CONSTRAINTS.....	7
4.3 HABITAT SUITABILITY ASSESSMENT .....	7
4.4 PRESENCE/ABSENCE SURVEY RESULTS.....	8
<b>5. DISCUSSION AND CONCLUSIONS</b> .....	<b>10</b>
5.1 SUMMARY OF SITE PROPOSALS .....	10
5.2 STATUS OF BADGERS ON SITE .....	10
5.3 CONCLUSIONS AND SUMMARY OF POTENTIAL IMPACTS.....	10
<b>6. RECOMMENDATIONS</b> .....	<b>11</b>
<b>REFERENCES AND BIBLIOGRAPHY</b> .....	<b>12</b>
<b>APPENDIX 1</b> .....	<b>13</b>

## 1. INTRODUCTION

### 1.1 PROJECT BACKGROUND

In August 2019 Panattoni c/o Turley commissioned Middlemarch Environmental Ltd to undertake a survey for badger *Meles Meles* at the Land to the North of the A4 in Theale. This assessment is required to inform a planning application associated with the construction of an employment facility, with associated access infrastructure, drainage and landscaping. The purpose of this survey was to determine the presence/absence of evidence of badgers on and adjacent to the site.

Middlemarch Environmental Ltd has previously carried a Preliminary Ecological Appraisal and Preliminary Bat Roost Assessment. The findings of this survey are detailed in Report RT-MME-150244-02.

In addition, Middlemarch Environmental Ltd has been commissioned to undertake the following assessments:

- Nocturnal Emergence and Dawn Re-entry Bat Surveys, RT-MME-150545-01; and
- Reptile Surveys, RT-MME-150545-03.

Badgers are a protected species and are capable of being a material consideration in the planning process. A summary of the legislation protecting badgers is included within Appendix 1. Please note that the location of badger setts should remain confidential, and the findings of this survey should not be disclosed outside of the intended purpose of this report.

### 1.2 DEVELOPMENT SITE DESCRIPTION AND CONTEXT

The survey area comprised a large grassland-dominated field located to the immediate west of the junction between the M4 motorway and A4 Bath Road (Junction 12). It was centred at National Grid Reference SU 64755 71463 and measured c. 5.5 hectares in area.

Reference to historical aerial imagery indicates that the site was subject to arable management as recently as 2010, however in recent years has been left fallow and has subsequently colonised with a mosaic of coarse grassland and ruderal species. Field boundaries are formed by a combination of wooden fencing, intact hedgerow, woodland edge and scrub. The field is bisected by a large electricity pylon and overhead wires running north to south. A tall mobile phone mast within a small compound of palisade security fencing is present in the north-eastern corner of the field. The survey area also includes a small hardstanding compound enclosed by Heras fencing to the northwest.

Beyond the site boundary to the south-east, south and south-west are steep slopes up to the highway embankments of the A4 Bath Road and Hoad Way respectively. The M4 runs northwest-southeast c. 80 m to the east of the site. To the northwest is a small complex of built environment comprising a mixture of residential and industrial units, and beyond the eastern half of the northern boundary is an area of greenspace. The wider area is occupied by a mosaic of farmland, greenspace, retail and residential development typical of the urban fringes of West Berkshire.

### 1.3 DOCUMENTATION PROVIDED

The conclusions and recommendations made in this report are based on information provided by the client regarding the scope of the project. Documentation made available by the client is listed in Table 1.1.

Document Name / Drawing Number	Author
Site Location Plan / 18-095-P200	SGP
Proposed Site Plan / 18-095-P201	SGP

**Table 1.1: Documentation Provided by Client**

## **2. METHODOLOGY**

### **2.1 DESK STUDY**

As part of the Preliminary Ecological Appraisal (Report RT-MME-150244-02) an ecological desk study was undertaken. The consultees for the desk study were:

- Natural England - *MAGIC* website for statutory conservation sites; and,
- Thames Valley Environmental Records Centre.

Middlemarch Environmental Ltd then assimilated and reviewed the desk study data provided by these organisations. Relevant badger data are discussed in Chapter 3. In compliance with the terms and conditions relating to its commercial use, the full desk study data are not provided within this report.

### **2.2 HABITAT ASSESSMENT**

A habitat assessment was undertaken to identify the suitability of the site for use by foraging and sett building badgers. This takes the nature of the surrounding landscape and connectivity with other areas of suitable habitat into account.

### **2.3 PRESENCE/ABSENCE SURVEY**

The survey site was subject to a comprehensive walkover assessment for the presence of badger field signs. Such signs include badger setts, footprints, pathways, hairs, snuffle holes and latrine sites. Any signs recorded were plotted on an appropriately scaled map. Where possible, the survey included a 30 m radius around the proposed development site.

### 3. DESK STUDY RESULTS

#### 3.1 BIOLOGICAL RECORDS

As part of the Extended Phase 1 Habitat Survey completed by Middlemarch Environmental Ltd, a desk study for records of protected species was completed. This study identified 15 badger records within a 1 km radius of the site, summarised in Table 3.1. The location of badger setts is confidential; therefore precise grid references of records are not provided in this report.

Species	No. of Records	Most Recent Record	Proximity of Nearest Record to Study Area	Species of Principal Importance?	Legislation / Conservation Status
Badger <i>Meles meles</i>	15	2016	†	-	WCA 6, PBA
<p><b>Key:</b>                      †: Badger records are confidential and therefore proximity is not provided within the report.                      PBA: Protection of Badgers Act 1992.                      WCA 6: Schedule 6 of Wildlife and Countryside Act 1981 (as amended). Animals which may not be killed or taken by certain methods.</p> <p>Species of Principal Importance: Species of Principal Importance for Nature Conservation in England.</p> <p>Note. This table does not include reference to the Berne Convention (Convention on the Conservation of European Wildlife and Natural Habitats), the Bonn Convention on the Conservation of Migratory Species of Wild Animals or the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).</p>					

**Table 3.1: Badger Records Within 1 km of the Development Boundary**

## 4. RESULTS

### 4.1 INTRODUCTION

The Badger Survey was undertaken on 11<sup>th</sup> September 2019 by Penelope Rees (Senior Ecological Consultant). Table 4.1 details the weather conditions at the time of the survey.

Parameter	Condition
Temperature (°C)	15
Cloud (%)	60
Wind (Beaufort)	2
Precipitation	None

**Table 4.1: Weather Conditions During Survey**

### 4.2 SURVEY CONSTRAINTS

No constraints were experienced during the survey visit.

### 4.3 HABITAT SUITABILITY ASSESSMENT

The site supports a range of habitats comprising a section of broadleaved woodland, scrub, hedgerows, semi-improved grassland and tall ruderal providing some opportunities for foraging (Plate 4.1). Areas of grassland within the site are likely to provide a source of earthworms, a food source favoured by badger. The site does not offer any suitable habitat for sett building, however, areas of broadleaved woodland are present adjacent to the site boundaries which provide suitable although limited habitat for sett building (Plate 4.2). The refuge and foraging opportunities provided by the woodland and scrub on site means that badgers may use the site to forage opportunistically.



**Plate 4.1: Example of the habitats found on site**



**Plate 4.2: Example of broadleaved woodland adjacent to site boundary**

The site is well connected to habitats in the immediate surrounding landscape, particularly pockets of woodland adjacent to the site boundaries, which are likely to provide further suitable foraging and sett-building opportunities (Plate 4.3). The habitat adjacent to the north-west boundary includes a larger area of broadleaved woodland with connected areas of grassland. Areas of the North Wessex Downs Area of Outstanding Natural Beauty are present to the north of the site however the M4 acts as a major barrier separating this habitat from the site. Habitat to the south and west consists of residential housing and industrial areas which are unsuitable for sett building but may provide some limited foraging habitat.



**Plate 4.3: Example of woodland adjacent to site boundaries**

The refuge and foraging opportunities provided by the woodland and scrub on site means that badgers may use the site to forage opportunistically.

#### **4.4 PRESENCE/ABSENCE SURVEY RESULTS**

No signs such as mammal runs, snuffle holes, footprints, hairs or latrines were identified within the site boundary. Large gaps were present in the boundary fencing which would allow badgers to cross into the site from the surrounding landscape (Plate 4.4). No signs such as setts, mammal runs, snuffle holes, footprints, hairs or latrines were identified within surrounding habitat within 30 m of the site in particular the area of woodland to the north-west of the site and the pockets of woodland found adjacent to the site boundaries.



Plate 4.4: Example of gaps in the boundary fencing

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## **5. DISCUSSION AND CONCLUSIONS**

### **5.1 SUMMARY OF SITE PROPOSALS**

The site is to be the subject of a planning application for the development of an employment facility, with associated access infrastructure, drainage and landscaping.

### **5.2 STATUS OF BADGERS ON SITE**

The results of the survey found no evidence of badger use within the site or the immediate surrounding landscape within 30 m of the site boundary. Furthermore, it can be concluded that no badger setts are present within 30 m of the site.

### **5.3 CONCLUSIONS AND SUMMARY OF POTENTIAL IMPACTS**

No signs of badger or badger setts were identified within the site and the immediate surrounding landscape, therefore no impacts to badgers are anticipated as a result of the works.

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## 6. RECOMMENDATIONS

All recommendations provided in this section are based on Middlemarch Environmental Ltd's current understanding of the site proposals, correct at the time the report was compiled. Should the proposals alter, the conclusions and recommendations made in the report should be reviewed to ensure that they remain appropriate.

- R1** Any excavations on site should either be covered at night or fitted with suitable mammal ramps in order to prevent badgers, or any other mammals, from becoming trapped. Any open pipework with an outside diameter of greater than 150mm must be blanked off at the end of each work day to prevent badgers entering/becoming trapped.
- R2** If no works have commenced within 18 months then an updated badger survey must be carried out. If any excavations are discovered during the works that suggest the presence of badgers works should cease and a suitably experienced ecologist contacted for advice.

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## REFERENCES AND BIBLIOGRAPHY

- Andrews, R. (2013) *The Classification of Badger Meles meles Setts in the UK: A Review and Guidance for Surveyors*. In Practice, Bulletin of the Chartered Institute of Ecology and Environmental Management. Issue 82.
- English Nature (2002). *Badgers and Development*. English Nature, Peterborough.
- Harris, S., Cresswell, P. and Jefferies, D. (1989) *Surveying Badgers*. Occasional Publication No. 9. Mammal Society, London.
- Middlemarch Environmental Limited (2019) Preliminary Ecological Appraisal: *Land to the North of the A4, Theale*. Report RT-MME-150244-02 Rev A
- Natural England (2009a). *Badgers and Development: A Guide to Best Practice and Licensing*. Interim Guidance Document Version 11/09. Natural England, Peterborough.
- Natural England (2009b). *Protection of Badgers Act 1992 (as amended): Guidance on 'Current Use' in the definition of a badger sett*. Natural England, Peterborough.
- Natural England (2009c). *Protection of Badgers Act 1992 (as amended): Interpretation of 'Disturbance' in relation to badgers occupying a sett*. Natural England, Peterborough.
- Protection of Badgers Act 1992 (as amended).
- Wildlife and Countryside Act 1981 (as amended).

## APPENDIX 1

### Badger Legislation

Badgers and their setts are protected under the Protection of Badgers Act 1992. The Protection of Badgers Act 1992 is based primarily on the need to protect badgers from baiting and deliberate harm or injury, badgers are not protected for conservation reasons. The following are criminal offences:

- To intentionally or recklessly interfere with a sett. Sett interference includes disturbing badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it.
- To wilfully kill, injure, take, possess or cruelly ill-treat a badger, or to attempt to do so.

A badger sett is defined in the legislation as:

- *'Any structure or place that displays signs indicating current use by a badger'*.

'Current use' is not synonymous with current occupation and a sett is defined as such (and thus protected) as long as signs of current usage are present. Therefore, a sett is protected until such a time as the field signs deteriorate to such an extent that they no longer indicate 'current usage'.

Badger sett interference can result from a multitude of operations including excavation and coring, even if there is no direct damage to the sett, such as through the disturbance of badgers whilst occupying the sett. Any intentional or reckless work that results in the interference of badger setts is illegal without a licence from Natural England<sup>30</sup>. In England a licence must be obtained from Natural England before any interference with a badger sett occurs.

Previous guidance from English Nature, Badgers and Development (English Nature, 2002) considered that the following types of activity may require licensing within certain distances of the sett entrances (these distances are not included within the Protection of Badgers Act, 1992):

- using very heavy machinery (generally tracked vehicles) within 30 m of any entrance to an active sett;
- using lighter machinery (generally wheeled vehicles), particularly any digging operation, within 20 m of any entrance to the active sett;
- light work such as hand digging or scrub clearance within 10 m of any entrance to the active sett.

However, some activities may cause disturbance at greater distances, including pile driving and the use of explosives. These activities require individual consideration to ensure that best ecological practice is followed, however, it is generally considered that a licence is more likely to be required if these works are undertaken within 50m of an active badger sett.

New guidance was issued by NE in 2009 which states that disturbance is something less than what might otherwise be considered damage to a sett, but it is also something more than limited noise or activity near a sett at levels which badgers commonly tolerate, without apparently being disturbed. NE therefore believes that badgers are relatively tolerant of moderate levels of disturbance at or near to badger setts, but such disturbance does not necessarily disturb the badgers occupying the setts. The disturbance, which different activities may or may not cause to a badger sett, should therefore be assessed on a case by case basis.

Although the above prescriptive distances are no longer referred to by NE, they can be used as an aid to assess where works would constitute a disturbance to each sett.

The reader should refer to the original legislation for the definitive interpretation.