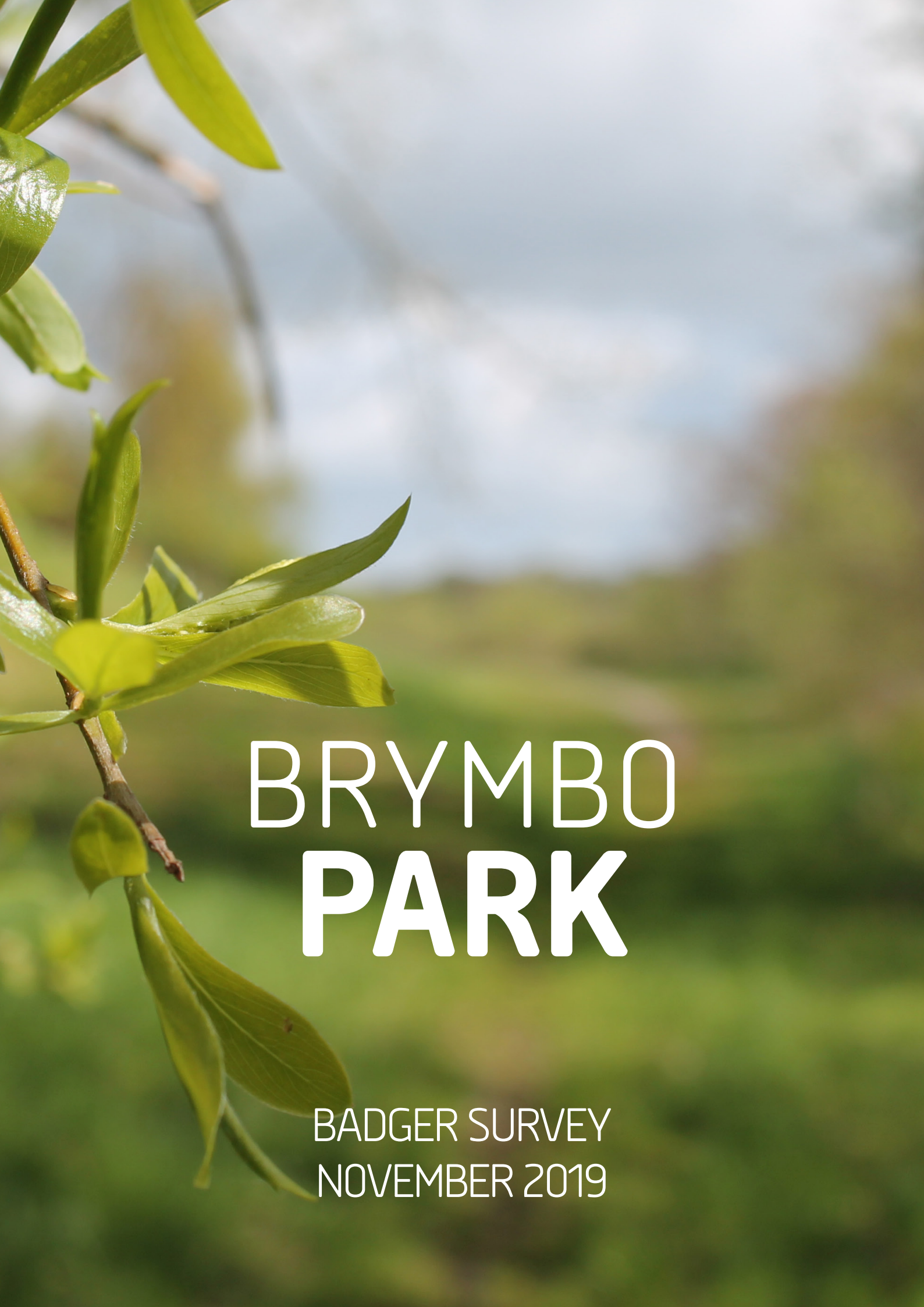




BRYMBO PARK

BADGER SURVEY
NOVEMBER 2019

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BRYMBO DEVELOPMENTS LTD

LAND AT THE FORMER BRYMBO STEELWORKS, BRYMBO, WREXHAM

BADGER SURVEY REPORT

MARCH 2019

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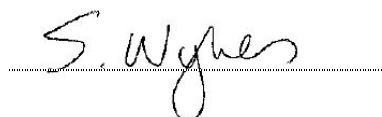


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APPENDICES

- Appendix 1 Legislation and Licencing Requirements
Appendix 2 Badger Ecology

DRAWINGS	TITLE	SCALE
ST16882-007	Extended Phase 1 Habitat Survey	1:5,000@A3

EXECUTIVE SUMMARY

A Preliminary Ecological Appraisal (PEA) was undertaken in August 2018 in support of a planning application for a housing development on land at the former Brymbo Steelworks, Brymbo, Wrexham, National Grid Reference SJ296534 (hereafter referred to as “the Site”). The PEA identified that habitats within the site could provide viable opportunities for sett creation and foraging habitat for badger *Meles meles*.

Wardell Armstrong LLP was subsequently commissioned by Brymbo Developments Ltd to undertake a detailed badger survey of land at the former Steelworks, Brymbo, Wrexham. Accordingly, a badger survey was undertaken in March 2019 to identify the status of badgers within the survey area.

The Site comprises areas of grassland, scrub, woodland and hedgerows that provide suitable foraging and sett creation opportunities.

No evidence of badger activity within the Site was found during the survey. A sett was recorded approximately 70m north of the north-east boundary of the Site, which comprised of two entrances and a large spoil mound. Lack of guard hairs and prints, presence of leaf litter and intact marker sticks at one of the entrances supported the conclusion that this sett was not in current use by badger. No setts were recorded within the Site.

As badgers are a mobile species and can construct setts in short timeframes, it is recommended that a pre-construction check for badgers is carried out prior to commencement of the development. As badgers are known to be present in the area, it is recommended that a means of escape is provided (such as a plank of wood or earth mound) in any deep trenches / excavations at the end of every day to allow egress of any animal that could become trapped overnight.

1 INTRODUCTION

1.1 Background

1.1.1 A Preliminary Ecological Appraisal (PEA) was undertaken in August 2018 in support of a planning application for a housing development on land at the former Brymbo Steelworks, Brymbo, Wrexham, National Grid Reference SJ296534 (hereafter referred to as “the Site”). The PEA identified that habitats within the site could provide viable opportunities for sett creation and foraging habitat for badger *Meles meles*.

1.1.2 Wardell Armstrong LLP (WA) was subsequently commissioned by Brymbo Developments Ltd to undertake a detailed badger survey of land at the former Steelworks, Brymbo, Wrexham. Accordingly, a badger survey was undertaken in March 2019 to identify the status of badgers within the survey area. See drawing number ST16882-007 for the survey area.

1.1.3 Details of legislation relating to badgers and licencing requirements are provided in Appendix 1. Additionally, a summary of badger ecology is provided in Appendix 2.

1.1.1 This report is confidential. It is recommended that this report is only made available to *bone fide* individuals and organisations in order to safe guard this species.

1.2 Survey objectives

1.2.1 This report is based on a field survey using standard survey methodologies appropriate to badger.

1.2.2 The objectives of the survey were to:

- Locate all setts and badger activity within the site;
- Determine the number of social groups present, their likely ranges and key foraging areas;
- Provide an evaluation of the likely impact of the proposed development on local badger populations; and
- Inform mitigation measures or further survey effort, if required.

1.3 Study Area Context

1.3.1 The Site forms part of the wider land holding associated with the former Brymbo Steelworks, some of which has already been significantly redeveloped. The Site covers an area of approximately 32.59 hectares of former industrial land which has been

remediated and regraded, formed of two distinct areas separated by a steeply sloping bank.

1.3.2 The uppermost area is known as Ty Cerrig, forming the western part of the Site. Ty Cerrig has been returned to open fields separated by hedgerows. The bank which separates the areas has been planted with woodland and has an extensive network of informal footpaths. This part of the Site is accessed from Brymbo Road.

1.3.3 The eastern part of the Site is separated from the west by Phoenix Drive. This area has been regraded into a plateau which sits lower than the western parcel and has significantly less vegetative cover.

1.4 **Quality Assurance & Environmental Management**

1.4.1 The surveys and assessments have been overseen by and the report checked and verified by a full member of CIEEM, whom is bound by its code of professional conduct.

1.4.2 All surveys and assessments have been undertaken with reference to the recommendations given in British Standard BS 42020, and as stated within specialist guidance, as appropriate, and are referenced separately.

2 METHODOLOGY

2.1 Desk Study

- 2.1.1 Cofnod (North Wales Environmental Information Service) were commissioned to search for badger records within a 2km radius from the site boundary.
- 2.1.2 In addition, Ordnance Survey mapping and satellite imagery were analysed for contextual habitat information in the local landscape.

2.2 Habitat Assessment

- 2.2.1 In order to provide a measure of habitat quality and foraging potential, habitat data was recorded during the PEA. This included broad habitat types suitable to support foraging badger, as well as habitats suitable to facilitate the excavation of setts. Using this data, the foraging habitats were then classified into 'optimal' or 'sub-optimal' foraging habitats.

2.3 Field Survey

- 2.3.1 The survey effort and data recorded followed the standard methodology used in the two most recent national surveys of badgers (Cresswell *et al.*, 1990 and Wilson *et al.*, 1997).
- 2.3.2 The survey area was searched systematically, with particular attention paid to all areas where the vegetation and/or topography offered suitable sett sites for badger. Any areas with dense ground cover (e.g. hedgerows and scrub) were examined closely. If the vegetation prevented entry (by the surveyor), then the perimeter was examined in order to identify any pathways leading into the vegetation that could suggest the presence of a badger sett.
- 2.3.3 The following signs of badger activity were surveyed for:
- Faeces – Usually deposited in characteristic excavated pits, concentrations of which (i.e. latrine sites) are typically found at home-range boundaries;
 - Setts - Comprising either single isolated holes or a series of holes likely to be interconnected underground;
 - Pathways – Either between setts or leading to feeding areas;
 - Scratching posts – Located at the base of tree trunks;
 - Foraging holes – comprising characteristically disturbed ground vegetation; and
 - Hair traces and/or footprints.

2.3.4 Where setts were found, activity levels were assessed using the following criteria:

- Number of sett entrances with features indicating recent use (well-worn entrance; freshly excavated soil, badger footprints, badger hair);
- Presence of bedding material;
- Number of partially used holes (leaves or twigs in entrance and/or mosses and other plants growing in or around entrance); and
- Number of disused holes (partially or completely blocked, with considerable amount of excavation required for re-occupation).

2.3.5 All field data was recorded onto secure digital media for mapping and data collection.

2.3.6 The recorded evidence was used to demine the type of sett, as detailed within Table 1, and confirm whether each sett was in 'current use'¹ or 'not in current use' in accordance with recent guidance (Natural England, 2009).

Table 1: Conventions Used in Classifying Badger Setts	
Sett Type	Definition
Main	• Can comprise of one or several holes, often with large spoil heaps and obvious paths emanating from and between sett entrances. • A number of activity features suggesting continuous presence and use. • A breeding site.
Annexe	• Normally <150m from main sett, comprising several holes. • May not be in use all the time, even if main sett is very active.
Subsidiary	• Usually at least 50m from main sett, with no obvious pathways connecting to other setts. • May be used regularly/intermittently, often relating to clan/territory size and changes in foraging regimes (i.e. crop growing times).
Outlier	• Little spoil outside holes, with no obvious pathways connecting to other setts and only used sporadically. • May be used by foxes and/or rabbits.

2.4 Limitations

2.4.1 Although badger surveys can be undertaken at any time of the year, badger activity levels are at their highest during February and March. Therefore, signs may be less frequent outside of this period. The survey was undertaken in March and therefore there are no seasonal constraints.

¹ Displaying signs indicating current use is not synonymous with current occupation.

- 2.4.2 Vegetation growth during April and September may conceal badger signs within areas of dense vegetation. Subsequently, less obvious signs of badger (e.g. latrines or foraging areas) may have been overlooked. However, as the survey was undertaken in March, it is considered that there are no seasonal constraints.

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3 SURVEY RESULTS

3.1 Desk Study

- 3.1.1 Cofnod returned records of badger and setts within 2km of the site, though no records were returned from within the Site. Precise location data was not provided of the sett so an accurate location cannot be provided.

3.2 Habitat Assessment

- 3.2.1 The Site consists of grassland habitat, predominantly arable leys at Ty Cerrig, to the west of the site, which is bordered by vegetated field boundaries containing a mixture of tall ruderal, bracken and dense and scattered scrub, and further grassland habitat to the eastern plateau of the site.
- 3.2.2 Further scattered scrub, lying over semi-improved grassland, lies throughout the western and central areas of the site.
- 3.2.3 Both mixed and broadleaved plantation woodlands are present across the site, most predominately in the western areas of the site at Ty Cerrig.
- 3.2.4 Both species-rich and species poor hedgerows were recorded within Ty Cerrig.
- 3.2.5 The grasslands, vegetative borders, woodlands and hedgerows provide foraging habitat and sett creation opportunities for badger.
- 3.2.6 Bare ground is present to the north of the site, but this is considered to have low value for badger, due to lack of vegetation diminishing any sett potential within this habitat.

3.3 Field Survey

- 3.3.1 During the survey, no evidence of badger activity was recorded within the Site, however, a sett (Sett 1) was identified outside of the survey area, detailed below.

Sett 1

- 3.3.2 Sett 1 comprised of two entrances, with a large spoil mound, lying approximately 70 metres north of the north-east boundary of the site. A moderately well-worn mammal path was found leading to the sett from wider areas of the site. No prints or guard hairs were found, and the entrance had a small accumulation of leaf litter. There is potential for this entrance to be in use by other species, such as red fox *Vulpes vulpes*. Heavy leaf litter was found at the second entrance, and marker sticks were also present. A third potential entrance was found at the sett, although this was found to be a blank tunnel.

3.3.3 From the evidence gathered, it is considered that Sett 1 is not currently being used by any badger clan within the area.



Plate 1: The first entrance. Entrance had the potential to be in use by other species.

Photo taken 5th March 2019.



Plate 2: The second entrance.

Photo taken 5th March 2019.

4 DISCUSSION

- 4.1.1 This badger survey found no evidence of badger activity within the Site, nor were there any active setts within the Site. The only sett recorded during the survey is considered not to be currently in use by badgers.
- 4.1.2 Whilst no evidence of badger was recorded within the site, badgers are known to be present within the local area, therefore mitigation measures will be required to ensure that badgers are not harmed by Site works.

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5 CONCLUSION AND RECOMMENDATIONS

- 5.1.1 There was no evidence of current badger activity within the site, and from the evidence gathered, the sett recorded outside of the site is considered not to be in current use by badger. In the event that the sett becomes re-occupied by badger, the sett lies suitably distant (>30m) from the site boundary, therefore would not be impacted by the development.
- 5.1.2 As badgers are a mobile species and can construct setts in short timeframes, it is recommended that a pre-construction check for badgers is carried out prior to commencement of the development. The results of this pre-commencement survey would inform mitigation measures for badgers, if necessary.
- 5.1.3 Additionally, in order to ensure that transient badgers utilising the Site for commuting are not impacted by Site works, the following measures are recommended to ensure Site works allow dispersal of badger throughout site and do not pose any hazards to commuting badgers.
- 5.1.4 These precautionary measures include:
- The placement of mammal ramps (such as a plank of wood or earth mound) placed into any open trenches or excavations at the end of every day to allow egress of any animal that may become trapped overnight.
- 5.1.5 In the event that any new holes are discovered during site works, a 30m no-entry buffer should be implemented around the entrance(s), all activity within this 30m buffer should cease and an ecologist should be immediately consulted to provide further advice.

6 REFERENCES

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Natural England (2009) *Badgers and Development: A Guide to Best Practice and Licensing*.

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Roper, T (2010) *Badger*. HarperCollins, London.

Appendix 1
Legislation and Licencing

Appendix 1: Legislation and Licencing

Legislation

The protection of Badger Act 1992 consolidates the previous Badger Acts of 1973 and 1991. The legislation aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common and widespread throughout Britain.

As well as protecting the animal itself, the 1992 Act also makes the intentional or reckless destruction, damage or obstruction of a badger sett an offence. A sett is defined as “any structure or place, which displays signs indicating current use by badgers”.

In addition, the intentional elimination of sufficient foraging area to support a known social group of badgers may, in certain circumstances, be construed as an offence by constituting ‘cruel treatment’ of a badger.

Licensing Requirements

Work that disturbs badgers is illegal without a licence. Natural England firstly developed guidelines on the types of activity that should be licensed within certain distances of sett entrances in its publication “Badgers and Development” (Natural England, 2002). These activities include the use of heavy machinery within 30m of any entrance to an active sett, and lighter machinery within 20m, or light work such as hand digging within 10m, all of which may require a licence. This guideline has been updated in the publication “Badgers and Development: A Guide to Best Practice and Licensing” (Natural England, 2009a) which includes a more flexible approach to zoning depending on the activities to be undertaken.

Appendix 2
Badger Ecology

Appendix 2: Badger Ecology

Badgers are a member of the weasel family and are widespread throughout Britain. It has been estimated that Britain supports in the region of 250,000 badgers. However they are not uniformly distributed and are less common in upland areas.

Badgers are very social animals and in most instances live in social groups. The national average social group size is approximately six adults, although Roper (2010) found that group sizes have increased over time. Groups of a dozen or so individuals are now common and groups of thirty or more are not unknown. Badger setts are normally excavated into suitably firm and free draining substrate and as a result are often located in steep banks and mounds.

In lowland Britain earthworms are a staple food item, although cereals and fruit may figure significantly in their seasonal diet. They will also feed on a range of other invertebrates and animals such as frogs, young rabbits and wasp grubs.

Badgers normally have a number of setts in their territory of which the main sett is occupied year round and is the most important for the social group. In addition a social group will also occasionally maintain annex, subsidiary and outlier setts each of which are of decreasing importance to the group as a whole.

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DRAWINGS



Key

Site Boundary

Broadleaved woodland - plantation

Mixed woodland - plantation

Scrub - dense/continuous

Scrub - scattered

SI

Neutral grassland - semi-improved

I

Improved grassland

Bracken - continuous

Other tall herb and fern - ruderal

Cultivated/disturbed land - ephemeral/short perennial

Buildings

Bare ground

Other habitat

Intact hedge - native species-rich

Intact hedge - species-poor

Hedge with trees - native species-rich

Hedge with trees - species-poor

Dry ditch

Target Notes

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