

# Extended Phase 1 Habitat Survey Report

55 Vastern Road, Reading, RG1 8BU

April 2018

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Signature of project supervisor



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# 1 Summary

## 1.1 Introduction

1.1.1 Ecoconsult Ltd has been commissioned to carry out an extended phase 1 habitat survey, daytime bat inspection survey and ecological data search for 55 Vastern Road, Reading.

## 1.2 Summary of survey work

1.2.1 Ecoconsult is not aware of any other ecological reports relating to the site.

1.2.2 The following work has been undertaken to inform the report.

- phase 1 habitat survey
- daytime bat inspection survey
- desk study

## 1.3 Summary of findings

1.3.1 Common habitats were recorded on site.

1.3.2 The River Thames (UK Biodiversity Action Plan Priority Habitat) is located within 5m from the northern boundary.

1.3.3 No evidence of roosting bats was located. The buildings are highly unlikely to support roosting bats.

1.3.4 Habitats on site have potential to support nesting birds.

## 1.4 Summary of conclusions

1.4.1 Wildlife habitats on the site are limited and of low ecological value.

1.4.2 Nesting birds will use hedgerows, scrub and trees on site to nest. Nesting birds and their nests are protected under the Wildlife and Countryside Act 1981 (as amended).

## 2 Introduction

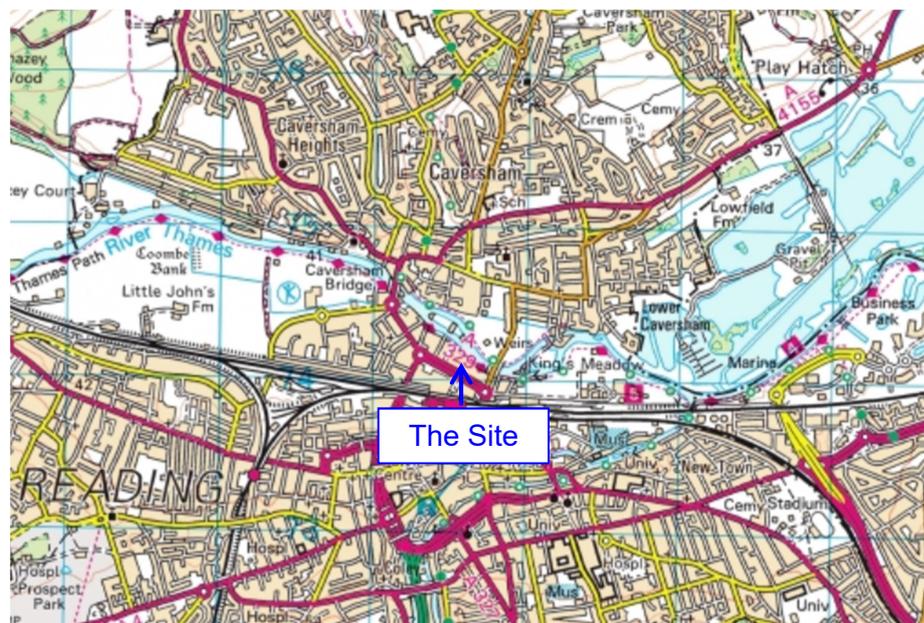
### 2.1 Objectives of survey

2.1.1 The objectives of the survey were:

- to determine if there are any habitats of ecological value on site
- to locate any evidence of protected species being present on site

### 2.2 Surrounding landscape

2.2.1 The site is located in the centre of Reading in an urban location. Land to the east, south and west is built environment dominated by commercial and residential buildings with limited open greenspace. The River Thames is located 5m north of the site beyond which lies areas of amenity grassland. Fry's Island is located 35m from the northern site boundary and supports residential and commercial properties and an area of woodland which is more than 100m from the site. The site is located at grid reference: SU 71557 74130.



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Figure 1: Site location (scale 1:50,000)

## 3 Methodology

### 3.1 Desk study

- 3.1.1 A data search was requested from Thames Valley Environmental Records Centre (TVERC) for the site and 1km radius from the site boundary to provide records for designated sites and protected and notable species.
- 3.1.2 The MAGIC website was searched to provide information regarding international statutory nature conservation sites within 5km from the site boundary.
- 3.1.3 The site was assessed in relation to Natural England's Sites of Special Scientific Interest (SSSI) Impact Risk Zones (IRZs).
- 3.1.4 Aerial photographs and 1:10,000 Ordnance Survey maps were used to search for ponds within 500m of the site.

### 3.2 Field surveys

#### Phase 1 habitat survey

- 3.2.1 The extended phase 1 habitat survey was carried out on 11<sup>th</sup> April 2018 and followed the methodology in *Handbook for Phase 1 Habitat Survey* (Joint Nature Conservation Committee, 2003) and *Guidelines for Baseline Ecological Assessment* (Institute of Environmental Management and Assessment, 1995).

#### Daytime bat inspection survey

- 3.2.2 A daytime survey of the buildings was carried out on 11<sup>th</sup> April 2018.
- 3.2.3 The daytime survey followed *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (2016).
- 3.2.4 A thorough search was made of the building(s) including all accessible areas and crevices for bats, their droppings, food remains or characteristic grease marks at potential exit/entrance points. The exterior of the buildings was searched, paying particular attention to window ledges or pipes where droppings can gather undisturbed, and under potential access points such as loose tiles and gaps between boarding.

## 3.2.5 Equipment for daytime inspection included:

- 8x32 close-focussing binoculars
- Cluson SM126 Smartlite heavy duty rechargeable torches
- fibre-optic endoscope (video inspection system: KC-150a)
- long ladder, 3 section extension (9.17m)
- telescopic ladder (3.8m)
- digital camera

## 3.2.6 Signs of bat activity searched for included:

- Droppings - these typically contain fragments of insect exoskeleton and crumble to dust (unlike those of small rodents, which typically become hard). Bat droppings will stick to surfaces including walls, windows and window ledges. Droppings may also become caught in spider webs below a roost site or feeding perch.
- Feeding remains - these include the discarded wings of flying invertebrates, which may accumulate under a well-used feeding perch. Some species, such as the brown long-eared bat have seasonal preference for moths of the noctuid family. Hence the accumulated wings of these moths commonly identify this bat as being present.
- Oil staining - the fur of bats may leave an oily residue on surfaces close to occupied roost sites and access/egress points.
- Smell – most bat species have an identifiable aroma while certain species, such as the noctule, are noted for their “smelly roosts” due to urine scent marking activity.
- Daytime vocalisations - these are most pronounced at larger roost sites during periods of hot weather.
- Absence of cobwebs - a well-used bat roost and its access points are typically clear of cobwebs.
- Scratching - scratch marks produced by the claws of many bats may be apparent close to the access point for a well-used roost.
- Dead bats.
- Tracks in dust.

Table 1: Timings and conditions of surveys

<b>Date</b>	<b>Timings</b>	<b>Survey work</b>	<b>Weather</b>
11/04/18	Start: 09:30 Finish: 13:00	Phase 1 survey of the site and daytime bat inspection survey	8°C No rain Light breeze (Beaufort 2) 100% cloud

### 3.3 Personnel

3.3.1 The survey of the site was carried out by the following surveyor:

3.3.2 Robert Gray is a Senior Ecologist at Ecoconsult with a BSc (Hons) degree in Conservation and Environment. He has carried out bat surveys since 2006 and has extensive experience in ecological survey and monitoring techniques, protected species surveys, mitigation and licensing, and acting as ecological clerk of works. He holds the following Natural England licences:

- Natural England Licence to disturb and take bats for the purposes of science and education or conservation bat survey licence (no. 2015-12641-CLS-CLS).
- Natural England Level 1 Licence to survey great crested newts for scientific (including research) or educational purposes (no. 2015-18636-CLS-CLS).

### 3.4 Constraints

3.4.1 Access was unavailable to the interior of buildings 2, 3, 4 and 5 and a shallow loft void associated with Building 1a.

## 4 Survey results

### 4.1 Designated Sites

#### Statutory Nature Conservation Sites

- 4.1.1 There are no international nature conservation sites located within 5km from the site boundary.
- 4.1.2 There are no national nature conservation sites located within 2km from the site boundary.
- 4.1.3 The site does not lie within a Site of Special Scientific Interest Impact Risk Zone.

#### Non-Statutory Nature Conservation Sites

- 4.1.4 The following non-statutory nature conservation sites are located within 1km from the site boundary:
- Cow Lane Depot Local Wildlife Site (LWS) is located 855m southwest of the site.
  - The Warren Woodlands Complex Local Wildlife Site (LWS) is located 910m northwest of the site.
  - The Coal, Kennetmouth and Kings Meadow East Local Wildlife Site (LWS) is located 920m east of the site.

#### Biodiversity Opportunity Area

- 4.1.5 The site does not lie within a Biodiversity Opportunity Area.

### 4.2 Habitats present on site

- 4.2.1 The site is dominated by building and hard-standing. The following habitat types are present on site:
- poor semi-improved grassland
  - scattered scrub
  - intact species poor hedgerow
  - individual trees
  - building
  - hardstanding



### Legend

- Building
- Hard standing
- SI Poor semi-improved grassland
- Intact species-poor hedgerow
- Scattered scrub
- Individual trees
- Boundary
- Target Notes

Figure 2: Phase 1 map

### 4.3 Target note 1: Poor semi-improved grassland

4.3.1 A small area of poor semi-improved grassland has developed from what was previously regularly mown amenity grassland (last cut July 2017) in the northwest corner of the site (see Figure 2, Target note 1 and Plate 1 below). Please refer to Table 2 below for botanical species list.

Table 2: Target note 1 botanical species list

Scientific name	Common name	DAFOR
<i>Achillea millefolium</i>	Yarrow	LA
<i>Bellis perennis</i>	Daisy	LF
<i>Festuca arundinacea</i>	Tall fescue	F
<i>Festuca rubra</i> agg.	Red fescue agg.	LF
<i>Geranium dissectum</i>	Cut-leaved crane's-bill	F
<i>Holcus lanatus</i>	Yorkshire fog	O
<i>Hypochaeris radicata</i>	Common cat's-ear	LF
<i>Lolium perenne</i>	Perennial rye-grass	LA
<i>Luzula campestris</i>	Field woodrush	LA
<i>Medicago arabica</i>	Spotted medick	LF
<i>Plantago lanceolata</i>	Ribwort plantain	F
<i>Ranunculus bulbosus</i>	Bulbous buttercup	O

DAFOR: D=Dominant; A=Abundant; O=Occasional; F=Frequent, R=Rare; L=Locally

#### **4.4 Target note 2: Scattered scrub**

4.4.1 Small linear sections of scattered butterfly-bush *Buddleja davidii* scrub are present partway along the northern boundary of the site (see Figure 2, Target note 2 and Plate 2 below).

#### **4.5 Target note 3: Intact species-poor hedgerow**

4.5.1 A 30m section of intact species-poor hedgerow runs partway along the western boundary (see Figure 2, Target note 3 and Plate 3 below). The hedgerow is dominated by butterfly-bush with a field-layer dominated by common ivy *Hedera helix*.

#### **4.6 Target note 4: Intact species-poor hedgerow**

4.6.1 A 20m section of intact species-poor hedgerow runs partway along the northern boundary (see Figure 2, Target note 4 and Plate 4 below). The hedgerow is dominated by butterfly-bush and has been planted above the poor semi-improved grassland.

#### **4.7 Target note 5: Individual trees**

4.7.1 Two mid-aged whitebeam *Sorbus aria* have been planted above the poor semi-improved grassland in the northwest corner of the site (see Figure 2, Target note 5 and Plate 5 below). The mid-aged trees do not support suitable bat roosting features.

#### **4.8 Buildings**

4.8.1 Buildings present on site include disused offices, sub-stations, garages and temporary prefabricated structures. Please refer to building locations in Figure 2 above and descriptions in Table 3 below.

Table 3: Building descriptions

4.8.2

	Description	Photo
B1a	<p>A large structure that was up until May 2017 used as offices. The exterior of the structure is well-sealed with no obvious access/roosting habitat for bats (see image right top). The majority of the roof is flat and felt was replaced in 2011 (see image middle right). A single pitched roof section is present in the wester section covered in corrugated metal sheeting. Roof coverings are in good condition with no obvious access for bats.</p> <p>A single loft void is present beneath the pitched section of roof. The void is well-sealed with no obvious access for bats. The eastern section is cluttered with water tanks and ducting (see image bottom right).</p> <p>The building does not provide suitable habitat to support roosting bats.</p>	 <p>The 'Photo' column contains three images. The top image shows the exterior of a multi-story office building with a light-colored facade and many windows. The middle image shows a flat roof area with several large white water tanks and various pipes and ducting. The bottom image shows the interior of a pitched roof structure with exposed wooden rafters and beams, illuminated by a bright light source.</p>

	Description	Photo
B1b	<p>A large modern structure that was used as offices up until May 2017 (see image top right). The shallow pitched roof is covered in corrugated metal sheeting that is in good condition (see image middle right). The exterior of the structure is well-sealed with no obvious access/roosting habitat for bats.</p> <p>A single well-sealed loft void is present above a suspended ceiling. The suspended wires promote a cluttered void (see image bottom right).</p> <p>The structure does not provide suitable habitat to support roosting bats.</p>	 <p>The top photograph shows the exterior of a modern, single-story office building with a light-colored facade and a dark, shallow-pitched roof. The building is situated on a paved area with some green-painted sections. The middle photograph shows a close-up of the roof, which is covered in corrugated metal sheeting. A large black pipe is visible on the roof. The bottom photograph shows the interior of the building, focusing on a cluttered loft void above a suspended ceiling. Numerous wires and cables are visible, creating a complex network of lines.</p>

	Description	Photo
B1c	<p>A brick section of building with a pitched roof covered in close fitting slates that was used as offices up until May 2017 (see image top right). The walls and roof are well-sealed. A single inaccessible shallow loft void (less than 1m height) is present. Street lighting promotes high light levels around the exterior of the building.</p> <p>A gap is present beneath lifted lead flashing (see Image middle right) with an additional gap between timber soffit and wall (see Image bottom right).</p> <p>No evidence of roosting bats was recorded when closely viewed closely.</p>	
B2	<p>A flat roofed brick building used as an electricity substation (see image right). The roof and walls are well-sealed with no obvious access for bats. A separate small substation is present to the north which is equally well-sealed with a shallow sloping roof.</p> <p>Access was unavailable to the interior of these structures.</p> <p>The exterior of the structures does not provide suitable habitat to support roosting bats.</p>	

	Description	Photo
B3	<p>A flat roofed brick building used as an electricity substation (see image right). The roof and walls are well-sealed with no obvious access for bats.</p> <p>Access was unavailable to the interior of the structure.</p> <p>The exterior of the structure does not provide suitable habitat to support roosting bats.</p>	
B4	<p>A flat roofed brick building used as an electricity substation (see image top right). The roof and walls are well-sealed with no obvious access for bats.</p> <p>Access was unavailable to the interior of the structure.</p> <p>A gap is present between plastic fascia and brick walls on the southeast and northwest elevations that was heavily cobwebbed (see image bottom right).</p>	
B5	<p>A flat roofed brick building used as an electricity substation (see image right). The roof and walls are well-sealed with no obvious access for bats.</p> <p>Access was unavailable to the interior of the structure.</p>	

	Description	Photo
B6	<p>A double concrete garage with flat roof and a metal bicycle shed (see Image right).</p> <p>The structures do not provide suitable bat roosting habitat.</p>	
B7	<p>A temporary prefabricated structure previously used as a workshop with open fronted smoking room (see image right).</p> <p>The structure does not provide suitable bat roosting habitat.</p>	

## **Species**

### **4.9 Badger**

- 4.9.1 The Thames Valley Environmental Records Centre currently holds a single record for a dead badger within 1km from the site.
- 4.9.2 No evidence of badgers was recorded during the survey. The majority of the site supports building/hard-standing and therefore it is highly unlikely badgers will use the site for foraging/commuting.

### **4.10 Bats**

- 4.10.1 The Thames Valley Environmental Records Centre currently holds multiple records for five confirmed species of bats within 1km from the site. None of the records originated from within the site boundary.
- 4.10.2 No evidence of roosting bats was recorded during the daytime bat inspection survey. The majority of surveyed sections of buildings on site do not support any potential bat roosting features. No evidence of use by bats was recorded in gaps associated with B1c and B4 and these were cobwebbed at the time of survey.
- 4.10.3 Access was unavailable to the interior of buildings 2, 3, 4 and 5.
- 4.10.4 The two whitebeam trees do not support potential bat roosting features.
- 4.10.5 Bats could use the boundaries of the site for foraging/commuting, particularly the northern boundary adjacent to the River Thames. However the majority of the site supports poor foraging habitat.

### **4.11 Otter**

- 4.11.1 The Thames Valley Environmental Records Centre currently holds two otter records within 1km from the site boundary. One of the records is for a visual sighting of an adult otter more than 200m east of the site. There are no records for holts within 1km from the site.
- 4.11.2 The northern site boundary is located within 5m of The River Thames and there is a wall along the northern boundary of the site and the river has reinforced banks.
- 4.11.3 The section of river adjacent to the site and within 100m of the site is heavily disturbed, including high light levels with very limited areas of semi-natural habitat and therefore is highly unlikely to support an otter holt.

#### **4.12 Water vole**

4.12.1 The Thames Valley Environmental Records Centre does not currently hold any water vole records within 1km from the site boundary.

4.12.2 The northern site boundary is located within 5m of The River Thames. The section of river adjacent to the site and within 100m of the site is heavily disturbed with reinforced banks and very limited areas of semi-natural habitat and therefore is highly unlikely to support water vole.

#### **4.13 Great crested newt**

4.13.1 The Thames Valley Environmental Records Centre currently holds a single great crested record for View Island located more than 400m east of the site. The record is for a positive eDNA record. Additional amphibian records include smooth newt, common frog and common toad.

4.13.2 There are no ponds within the site boundary or located within 250m of the site. A pond is located within 500m of the site on View Island. Great crested newts will not be affected by the proposals.

#### **4.14 Reptiles**

4.14.1 The Thames Valley Environmental Records Centre currently holds three old slow-worm records within 1km from the site boundary. None of the records originated from inside the site boundary.

4.14.2 The site does not provide suitable reptile habitat. The small area of poor semi-improved grassland located in the northwest corner of the site had up until July 2017 been managed as amenity grassland and is isolated from nearby areas of suitable reptile habitat.

#### **4.15 Nesting birds**

4.15.1 The Thames Valley Environmental Records Centre currently holds records for ten notable/protected bird species within 1km from the site.

4.15.2 No Red Listed Birds of Conservation Concern were recorded on the site during the survey. The following Amber Listed Birds of Conservation Concern were recorded on site: dunnock.

4.15.3 The site provides suitable habitat for nesting birds within hedgerows, individual trees and buildings.

#### **4.16 Invertebrates**

4.16.1 The Thames Valley Environmental Records Centre currently holds records for four species of notable/protected invertebrates within 1km from the site boundary. None of the records originated from inside the site boundary.

4.16.2 The habitats within the site are common and widespread, and therefore are only likely to support common and widespread species of invertebrates.

#### **4.17 Plants**

4.17.1 The Thames Valley Environmental Records Centre does not currently hold any notable/protected plant records within 1km from the site boundary.

4.17.2 No protected/notable plant species were recorded within the site boundary.

## 5 Conclusions and recommendations

5.1.1 A desk study, extended phase 1 habitat survey and daytime bat survey have been undertaken 55 Vastern Road, Reading.

### 5.2 Nature conservation sites

5.2.1 There are no likely impacts to any statutory or non-statutory nature conservation sites.

### 5.3 Habitats

5.3.1 The site supports habitats that are common and widespread in the local area. No UK Biodiversity Action Plan (UKBAP) Priority habitats are present within the site.

5.3.2 The site is located within 5m of The River Thames (UK Biodiversity Action Plan Priority habitat).

### 5.4 Legally protected species

#### Bats

5.4.1 No evidence of roosting bats was located in the buildings. Electricity substation buildings 2, 3, 4 and 5 were inaccessible due to health and safety concerns. It is highly unlikely that these buildings support bats and no further surveys are considered necessary.

#### Nesting birds

5.4.2 The site provides suitable habitat for nesting birds within hedgerows, individual trees and buildings.

5.4.3 Nesting birds and their nests are protected under the Wildlife and Countryside Act 1981 (as amended). Disturbance to nesting birds can be avoided by carrying out works and/or by excluding birds from suitable nest sites outside the main nesting season. The main nesting season is generally March to August inclusive. However, birds may nest outside the main nesting period, in which case, works that would result in nest disturbance will cease until birds have fledged. Alternatively a suitably qualified ecologist could be employed to determine presence/absence of nesting birds and advise as necessary.

## **5.5 Opportunities for habitat creation**

- 5.5.1 Opportunities should be sought to realise a net gain for biodiversity through the proposed development through the creation of new habitats. These will be developed having regard to The Reading Biodiversity Action Plan.

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