Cambourne to Cambridge Better Public Transport:

Stage 1 Bat Inspection Survey 2017-18.

FINAL REPORT

For: Greater Cambridge Partnership

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March 2018

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To achieve the study objectives stated in this report, we were required to base our conclusions on the best information available during the period of the investigation and within the limits prescribed by our client in the agreement.

No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information. Thus, we cannot guarantee that the investigations completely defined the degree or extent of e.g. species abundances or habitat management efficacy described in the report.

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<table>
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EXECUTIVE SUMMARY

On behalf of Greater Cambridge Partnership, Cambridge Ecology Ltd was commissioned to carry out a Stage 1 bat inspection survey of trees on land associated with the Cambourne to Cambridge Better Public Transport Scheme. The survey comprised the sections between Bourne Airfield and Grange Road, Cambridge.

The results of the bat inspection survey could be used to provide guidance on the need for more detailed Stage 2 bat activity surveys and whether any requirements were necessary for mitigation, to meet legal obligations, including the need to apply for European Protected Species Licences.

The bat surveys were led by a professional licensed and qualified ecologist, Darren Frost (Natural England Bat Survey Class Licence - Registration number 2015-11702-CLS-CLS).

No actual bats were found during the surveys and no signs indicating the presence of roosting/hibernating bats were found in any of the trees or bat boxes that were searched.

However, 47 of the trees surveyed were considered to contain potential roost features suitable to support roosting bats.

In combination, the habitats present; the records of bats in close proximity to the site; and the trees identified as containing potential roost features indicated that there was potential of roosting bats being present within the site.

Biological records from the last 10 years indicated the presence of seven species of bats including sitings from locations within the survey area. (Cambridge Ecology 2017a). It is noted that one of the species, Western Barbestelle bat, is cited as a key feature of Eversden and Wimpole Woods Special Area of Conservation (SAC), located approximately 7km to the south west of the survey area.

Based on the findings of the Stage 1 bat inspection survey, Stage 2 bat activity surveys (emergence/re-entry, transects and static surveys) are recommended for the trees containing suitable roost features and the network of hedgerows, lines of trees, woodland edges and field boundaries as they could be important foraging and/or commuting routes for bats. The scheme could bisect a number of these linear features, potentially adversely affecting commuting, foraging and/or roosting bats. The survey would involve a series of transect and static surveys during periods of optimum bat activity.

Based on the findings of this survey, mitigation measures would be considered necessary; the detail of these would depend on the actual route of the scheme. The mitigation measures would be necessary to ensure legal compliance pertaining to bats and enable the scheme to proceed without causing a significant adverse effect on the local bat population.

Enhancement measures would be possible that could benefit the local bat population. The inclusion of enhancement measures would help the scheme meet the local and
national planning policy. The enhancement measures may be incorporated into the landscape/habitat creation design proposals for the scheme that would aim to result in conservation gain.
INTRODUCTION

1.1 On behalf of Greater Cambridge Partnership, Cambridge Ecology Ltd was commissioned to carry out a Stage 1 bat inspection surveys of trees on land associated with the Cambourne to Cambridge Better Public Transport Scheme. The survey comprised the sections between Bourne Airfield and Grange Road, Cambridge.

1.2 The results of a review of recent biological data (less than 10 years old) from recognised sources of ecological records had already been reported in the Protected Species Constraints survey (Cambridge Ecology 2017a). The results of the Protected Species Constraints survey suggested that the survey area was suitable to support bats. Therefore, this survey was required to investigate, the potential for Bats (and Bat roost sites), which are protected species, to be present along the scheme route and which could therefore potentially be affected by the development, and so could cause a constraint to the scheme. If present, Bats would need to be considered further in relation to maintaining compliance with wildlife legislation and planning policy.

1.3 For clarity in this report the development site (or 'site') refers to land within survey area including the red line boundary of the Cambourne to Cambridge Better Public Transport Scheme (see Figure 1.1).

1.4 The aim of the Stage 1 bat inspection survey and this report were to:

- identify the likely presence of roosting bats in the trees within the site.

- evaluate the use of the trees by bats, including the status of any roosts if present.

- provide information to address any constraints caused by bats at the site, including whether additional bat surveys are required and whether a European Protected Species (EPS) licence would be required to ensure legal compliance is maintained.

- highlight the need for appropriate mitigation measures, necessary to comply with legal requirements pertaining to protected species, and provide enhancement opportunities in relation national planning policy in terms of the National Planning Policy Framework (NPPF). The key principles in the NPPF require that “the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and delivering net gains in biodiversity where possible.”

- highlight the opportunity for appropriate habitat creation and biodiversity enhancement measures that would be included in the design of any landscaping plans associated with the development (including any habitat creation plans and ecological management plans).
Survey Area

1.5 The site was located between Grange Road, Cambridge at the eastern end and the Bourne Airfield entrance off the A1303 at the western end. Three potential park and ride sites were also included; one at Bourne Airfield, one adjacent to Scotland Farm and the other near the water tower adjacent to Madingley Mulch. To the north the site was bordered by the A428 dual carriageway and to the south mainly by arable land. The total area within the red-line boundary of the development site covers an area of approximately 380 hectares (ha).

1.6 The survey area included a buffer zone up to 50m beyond the red line boundary of the Cambourne to Cambridge Better Public Transport Scheme. The survey excluded areas where access was not possible and areas beyond significant features such as major roads (e.g. A428), commercial, academic and residential developments and residential developments. These features were already likely to influence the movement and behaviour of wildlife and beyond which the scheme would be unlikely to exert an adverse effect.

1.7 Within the survey area:
- the dominant habitat was arable land,
- other habitats included amenity and improved grassland, tall ruderal, dense and scattered scrub, ephemeral/short perennial,
- habitats of conservation value included, semi-improved grassland, broad-leaved lowland deciduous woodland (including plantation woodland), traditional orchards, hedgerows, wet and dry ditches other waterbodies (such as ponds and a lake) and Bin Brook.
2 METHODS

Bat roost inspection survey (daytime search)

2.1 The area for the bat inspection survey comprised the red line boundary of the development site, plus an area up to 50m beyond the site boundary to the east and south (where access was possible). Due to the size and nature of the development the 50m area was chosen as the maximum potential zone of influence. The area beyond the development site to the north of the A428 (except around Scotland Farm) and amongst commercial, academic and residential developments were not included in the survey because it comprised a built environment with residential properties and roads, and therefore of very limited ecological value, in addition access to these private areas was not possible.

2.2 A Stage 1 bat inspection survey was carried out on the trees and bridge within the survey area of the scheme.

2.3 The aim of the inspection surveys would be to:

• determine whether bats/bat roosts are, have been or considered likely to be in any of the trees within the survey area. If necessary, this would include evaluating the number of bats present, the species involved, and the location of roost and access points.

• provide advice on the implications if (i) roosting bats are found at the site or (ii) the presence of bat roosts is considered likely, or (iii) trees had potential to support roosting bats.

2.4 The survey visits were conducted between November 2017 and January 2018 inclusive, led by a professional licensed and qualified ecologist, Darren Frost (Natural England Bat Survey Class Licence CL18 - Registration number CLS01438) and supported by Maurice Webber (Natural England Bat Survey Class Licence CL18 - Registration number CLS01438), with experience in bat inspection surveys and knowledge of bat ecology.

2.5 The time of year was chosen when the trees were devoid of leaf cover, thereby optimising the ability to see features in the tree structure so a visual assessment of the trees potential to support roosting bats could be made.

2.6 Weather conditions and visibility at the time of the survey visits were suitable to observe features in the trees that may provide potential bat roost features.

2.7 Table 2.1 shows details the actual survey dates and weather conditions.

Table 2.1 Weather conditions recorded during the times of the Bat Inspection surveys at Cambourne in 2017-2018.

<table>
<thead>
<tr>
<th>Diurnal</th>
<th>Time</th>
<th>Date</th>
<th>Temperature</th>
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</thead>
<tbody>
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</table>
The bat inspection survey was based on the Bat Survey Good Practice Guidelines (Collins 2016; Mitchell-Jones 2004; Mitchell-Jones & McLeish 2004). The survey comprised a series of comprehensive daytime, external surveys of the trees within the development site where access was safe and achievable.

The search entailed looking for evidence of bats or their roosts including; droppings and urine staining, fur staining and scratch marks, and live or dead bats. Binoculars, mirrors, endoscope, ladder and a powerful torch (one million candlepower) were used to aid searches of the trees.

Trees

The exterior of the trees was surveyed from ground level to identify potential roost features (such as woodpecker holes, rot holes; hazard beam, cracks, splits, knot holes, flaking bark, bat boxes etc.), through which bats could gain access and use as roost sites.

Where possible the inside of the trees and crevices (where these were reachable within 5m of the ground), were searched for bats and evidence of bats. All ledges and surfaces were checked for use by roosting bats. The area around these features, was searched for bat droppings, feeding remains, scratch marks and fur and urine staining.

All trees considered to contain potential roost features capable of supporting roosting bats were recorded and plotted on a map for future reference.

Photographs were taken to authenticate any evidence of bat species and record the character of the trees containing potential roost features.

If structures were found showing evidence of bats, these would be assessed to determine the type of bat roost considered to be present (Collins, 2016): The types of bat roost considered were as follows:

- Maternity or Nursery Roost
- Hibernation Roost
- Daytime Summer Roost
- Night Roost
- Feeding Roost

<table>
<thead>
<tr>
<th>Survey</th>
<th>Date</th>
<th>Conditions</th>
<th>Cloud Cover</th>
<th>Wind Direction</th>
<th>Wind Speed (Ave. mph)</th>
<th>(Ave. °C)</th>
<th>(y/n)</th>
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<tbody>
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<td>0930-1530</td>
<td>Dry/Overcast</td>
<td>22/11/17</td>
<td>100%</td>
<td>S</td>
<td>19</td>
<td>13</td>
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<tr>
<td>2</td>
<td>0930-1530</td>
<td>Dry/Sunny</td>
<td>23/11/17</td>
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<td>SW</td>
<td>22</td>
<td>11</td>
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<tr>
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<td>0930-1500</td>
<td>Dull Overcast</td>
<td>20/12/17</td>
<td>100%</td>
<td>WSW</td>
<td>6</td>
<td>10</td>
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<tr>
<td>4</td>
<td>0930-1530</td>
<td>Dull Overcast</td>
<td>21/12/17</td>
<td>100%</td>
<td>SW</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
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<td>Bright Overcast</td>
<td>23/01/18</td>
<td>100%</td>
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<tr>
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<td>0930-1530</td>
<td>Dry/Sunny</td>
<td>25/01/18</td>
<td>50%</td>
<td>SW</td>
<td>17</td>
<td>8</td>
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</tbody>
</table>
Based on the characteristics of the trees and features being inspected and the surrounding habitat, an assessment of their suitability to roosting bats was made. This involved the consideration of the following factors:

- Light levels.
- Temperature regime and protection from the weather.
- Access to the interior of the building and other roost sites.
- Potential roost sites.
- Tree/Building characteristics/construction.
- Habitat context.
3 RESULTS

Bat Inspection Survey

3.1 At the time of the survey no actual bats or signs indicating the presence of roosting bats were found during the searches made of the trees within the survey area.

3.2 Of the trees surveyed, 47 were considered to contain potential roost features suitable for roosting bats as defined by the Bat Conservation Trust survey guidelines (Collins 2016).

3.3 The suitable features included cracks, splits and crevices in major tree limbs, hollow cavities and holes created by woodpeckers and/or as a result of diseased parts of the tree.

3.4 Tables 3.1 to 3.12 provide a description of the 47 trees considered to contain potential roost features capable of supporting roosting bats.

3.5 Figures 3.1 to 3.6 shows the indicative location of the 47 trees with bat roost potential.; and the Photographs section contains images of the 47 trees.

3.6 Seven of the trees (Nos 1, 25, 26, 27, 28, 29, and 42) were found to have bat boxes fitted. One of the trees (No 1) was located near the entrance to Bourne Airfield, the other six trees (25, 26, 27, 28, 29 and 42) were located on trees in woodland blocks on the West Cambridge (academic/commercial research) Site. None of these boxes contained any signs to indicate that they had been used by roosting bats.

General Habitats

3.7 The habitats within the survey area were considered to provide a range of features suitable to support roosting and foraging bats and commuting routes across the site.

3.8 The presence of mature trees containing features suitable for roosting bats were present. In addition, the mature trees, hedgerows, linear tree planting, tall ruderal, waterbodies (such as ponds, Bin Brook and ditches with flowing water) and semi-improved grassland habitat provided good foraging opportunities for bats. The grassland areas and woodland edges in particular would be expected to provide foraging opportunities for bats as they would likely support a variety of invertebrate species on which the bats could feed.

3.9 Most bat species utilise linear features and use preferred flight routes. The matrix of habitats and linear features such as the hedgerows and field boundaries would be expected to provide suitable foraging opportunities and sheltered commuting links between potential roost site and foraging areas.

3.10 In addition to the features observed, the biological record search as part of the initial ecology investigation (and subsequently updated), indicated the presence of seven species of bats (Brown Long-eared Bat, Common and Soprano Pipistrelle, Daubenton’s, Noctule, Serotine and Western Barbastelle from at least 15 sites, including within the survey area during the last 10 years. (Cambridge Ecology 2017a).
3.11 Most of the area in the site was dominated by the arable land, commercial, academic and residential areas and therefore provided relatively poor habitat for bats. However, there were a few significant sections of woodland and network of hedgerows located mostly between Bin Brook to the east of the M11 motorway, across through Coton village and up to Long Road near Hardwick. They could be considered to form a recognisable network linking different habitats, although it was recognised that the M11 motorway bisected these networks resulting in some fragmentation.

3.12 To the east of the M11 motorway, field boundaries were often marked by farm tracks, drainage/irrigation ditches and well-established network of mature hedgerows (e.g. Coton Path Hedgerow County Wildlife Site). Arable field margins, conservation headlands and game cover crops were also present here. Foraging habitat for bats and commuting routes between potential foraging areas and roost sites were therefore available. A similar network of hedgerows and field boundaries and woodland areas were present around Coton village to Long Road up towards Hardwick. However, from the field boundaries to the west of the M1 motorway were more often marked by farm tracks, drainage/irrigation ditches but few mature hedgerows. There were few arable field margins and conservation headlands. Foraging habitat for bats and commuting routes between potential foraging areas and roost sites were therefore limited.

Survey Constraints

3.13 It was considered that the Stage 1 Bat Inspection survey of the land within and adjacent to the site provided a robust and valid assessment of the trees and their potential to support roosting bats within the areas searched at the site. A thorough search was made of all accessible habitats within the survey area.

3.14 The survey was considered to have been carried out methodically and all accessible areas searched thoroughly to locate signs indicating the presence of Bats and inspection of the trees potential to contain potential roost features.

3.15 It was acknowledged that some areas were inaccessible during the survey; due to lack of access to private land (mostly residential and commercial). Therefore, the presence/absence of trees containing potential roost features could not be verified in these areas.

3.16 It is recognised that there would always be a risk that bats and their signs could be over-looked, either owing to the timing (both time of day and time of year) of the survey, the in-accessibility to some areas, the scarcity of the species at the site or the ability of bats to move to new roost sites periodically and therefore move into an area after the survey had been carried out.
Table 3.1: Details of the trees considered to have potential to support roosting bats

<table>
<thead>
<tr>
<th>No</th>
<th>Feature</th>
<th>Tree Identification Code</th>
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</tr>
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<td>Tree Type</td>
<td>Oak</td>
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<td>2</td>
<td>Age/Trunk size (dia)</td>
<td>&gt;500mm</td>
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<td>3</td>
<td>Aspect (isolated/in a woodland)</td>
<td>Isolated</td>
</tr>
<tr>
<td>4</td>
<td>Surrounding habitat type</td>
<td>Arable land and main road</td>
</tr>
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<td>5</td>
<td>Presence of natural holes</td>
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<td>6</td>
<td>Presence of woodpecker holes</td>
<td>Yes</td>
</tr>
<tr>
<td>7</td>
<td>Presence of cracks/splits in major limbs</td>
<td>Yes</td>
</tr>
<tr>
<td>8</td>
<td>Presence of loose bark</td>
<td>Yes</td>
</tr>
<tr>
<td>9</td>
<td>Presence of Ivy clad trunks and/or limbs</td>
<td>No</td>
</tr>
<tr>
<td>10</td>
<td>Presence of hollows/cavities</td>
<td>Yes</td>
</tr>
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<td>11</td>
<td>Presence of epicormic growth</td>
<td>No</td>
</tr>
<tr>
<td>12</td>
<td>Presence of bat or bird boxes</td>
<td>Bat boxes</td>
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<td>Evidence of work or disturbance to tree</td>
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<td>Overall condition of tree</td>
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<td>Light sources nearby illuminating tree</td>
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<td>16</td>
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<td>Signs of bats</td>
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<td>Aspect (isolated/in a woodland)</td>
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<td>Surrounding habitat type</td>
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<td>Presence of natural holes</td>
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<tr>
<td>6</td>
<td>Presence of woodpecker holes</td>
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<tr>
<td>16</td>
<td>Bats found</td>
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<td>17</td>
<td>Signs of bats</td>
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Table 3.3: Details of the trees considered to have potential to support roosting bats

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<td>7</td>
<td>Presence of cracks/splits in major limbs</td>
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<td>8</td>
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<td>9</td>
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<td>10</td>
<td>Presence of hollows/cavities</td>
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<td>12</td>
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<td>13</td>
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<tr>
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<tr>
<td>15</td>
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<td>16</td>
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<td>17</td>
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Table 3.4: Details of the trees considered to have potential to support roosting bats

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<tr>
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<td>Presence of natural holes</td>
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<tr>
<td>6</td>
<td>Presence of woodpecker holes</td>
<td>Yes</td>
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<tr>
<td>7</td>
<td>Presence of cracks/splits in major limbs</td>
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<tr>
<td>8</td>
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<td>9</td>
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<td>10</td>
<td>Presence of hollows/cavities</td>
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<td>11</td>
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<td>12</td>
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<td>5</td>
<td>Presence of natural holes</td>
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<td>6</td>
<td>Presence of woodpecker holes</td>
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<tr>
<td>7</td>
<td>Presence of cracks/splits in major limbs</td>
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<td>8</td>
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<td>10</td>
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<td>6</td>
<td>Presence of woodpecker holes</td>
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<td>7</td>
<td>Presence of cracks/splits in major limbs</td>
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<td>8</td>
<td>Presence of loose bark</td>
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<td>9</td>
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<td>10</td>
<td>Presence of hollows/cavities</td>
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<td>11</td>
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Table 3.7: Details of the trees considered to have potential to support roosting bats

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<td>7</td>
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<td>8</td>
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<td>9</td>
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<td>10</td>
<td>Presence of hollows/cavities</td>
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<tr>
<td>14</td>
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Table 3.8: Details of the trees considered to have potential to support roosting bats

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<td>Yes</td>
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<td>Yes</td>
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Table 3.9: Details of the trees considered to have potential to support roosting bats

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</tr>
<tr>
<td>7</td>
<td>Presence of cracks/splits in major limbs</td>
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<td>8</td>
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<td>9</td>
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Table 3.10: Details of the trees considered to have potential to support roosting bats

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<td>7</td>
<td>Presence of cracks/splits in major limbs</td>
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<td>Presence of loose bark</td>
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<td>11</td>
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<td>Presence of bat or bird boxes</td>
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<td>13</td>
<td>Evidence of work or disturbance to tree</td>
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<td>14</td>
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Table 3.11: Details of the trees considered to have potential to support roosting bats

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<td>Presence of woodpecker holes</td>
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<td>Presence of cracks/splits in major limbs</td>
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<tr>
<td>8</td>
<td>Presence of loose bark</td>
<td>No</td>
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<tr>
<td>9</td>
<td>Presence of Ivy clad trunks and/or limbs</td>
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</tr>
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<td>10</td>
<td>Presence of hollows/cavities</td>
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</tr>
<tr>
<td>11</td>
<td>Presence of epicormic growth</td>
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<td>12</td>
<td>Presence of bat or bird boxes</td>
<td>No</td>
</tr>
<tr>
<td>13</td>
<td>Evidence of work or disturbance to tree</td>
<td>No</td>
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<td>15</td>
<td>Light sources nearby illuminating tree</td>
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<tr>
<td>16</td>
<td>Bats found</td>
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<td>17</td>
<td>Signs of bats</td>
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<tr>
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<td>Comments</td>
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### Table 3.12: Details of the trees considered to have potential to support roosting bats

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<tr>
<td>3</td>
<td>Aspect (isolated/in a woodland)</td>
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<td>4</td>
<td>Surrounding habitat type</td>
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<td></td>
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<td>Presence of natural holes</td>
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<td>Presence of woodpecker holes</td>
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<tr>
<td>8</td>
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<tr>
<td>9</td>
<td>Presence of Ivy clad trunks and/or limbs</td>
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<td>13</td>
<td>Evidence of work or disturbance to tree</td>
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<tr>
<td>14</td>
<td>Overall condition of tree</td>
<td>Fair</td>
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<tr>
<td>15</td>
<td>Light sources nearby illuminating tree</td>
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<td>16</td>
<td>Bats found</td>
<td>None</td>
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<tr>
<td>17</td>
<td>Signs of bats</td>
<td>None</td>
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<tr>
<td>18</td>
<td>Suitability for roosting bats</td>
<td>High</td>
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<tr>
<td>19</td>
<td>Comments</td>
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</tbody>
</table>
4 KEY POINTS AND FINDINGS

4.1 Between November and January inclusive a Stage 1 Bat Inspection survey was successfully carried out on land between Grange Road, Cambridge at the eastern end and the Bourne Airfield entrance off the A1303 at the western end.

4.2 The survey was carried out by professional, qualified and licensed ecologists, with experience in bat inspection surveys and knowledge of bat ecology. The survey was based on BCT (2016) Bat surveys – Good Practice Guidelines and comprised a comprehensive daytime, external and internal (where possible) survey of the trees on land associated with the Cambourne to Cambridge Better Public Transport Scheme.

4.3 The information gathered from the Stage 1 bat inspection survey was considered to provide a robust and valid assessment of the trees within the site/survey area, to contain potential roost features suitable to support roosting bats.

4.4 No actual bats were found during the surveys and no signs indicating the presence of roosting/hibernating bats were found in any of the trees and/or bat boxes found on seven of the trees.

4.5 Of all the trees surveyed 47 were considered to contain potential roost features suitable to support roosting bats.

4.6 During the surveys seven trees were found to have bat boxes attached. These bat boxes were likely to have been installed as part of mitigation and/or biodiversity enhancement measures associated with the West Cambridge Site expansion. However, it was interesting to note that none of the boxes showed any signs of having accommodated any roosting bats.

4.7 The majority of the habitat in the survey area comprising arable land and therefore of limited benefit to bats. However, it was recognised that there were habitats within the survey area considered to provide a range of features suitable to support roosting sites, foraging area and commuting routes for bats.

4.8 Mature trees containing features suitable for roosting bats were present. In addition, the mature trees, hedgerows, linear tree planting, tall ruderal, waterbodies and semi-improved grassland habitat provided good foraging opportunities for bats and the network of hedgerows and linear features provided suitable commuting routes for bats.

4.9 Biological records from the last 10 years indicated the presence of seven species of bats (Brown Long-eared Bat, Common and Soprano Pipistrelle, Daubenton's, Noctule, Serotine and Western Barbastelle) from at least 15 locations, including within the survey area. (Cambridge Ecology 2017a). However, there were no recent records of bat roosts of any species along the potential route of the scheme. The only record of a bat roost within the survey area was of a bat species roosting at Keyneside, Clare Hall, Herschel Road, in 1995. It is noted that Western Barbastelle bat, is cited as a key feature of Eversden and Wimpole Woods Special Area of Conservation (SAC), located approximately 7km to the south west of the survey area. It is therefore
possible that the survey area has the potential to include key foraging and commuting routes for this species.

4.10 In combination, the habitats present, the records of bats in close proximity to the site and the trees identified as containing potential roost features indicated that there was a possibility of roosting bats being present within the site.

4.11 Based on the findings of the Stage 1 bat inspection survey, Stage 2 bat activity surveys (emergence/re-entry, transects and static surveys) are recommended for the trees containing suitable roost features and the network of hedgerows, lines of trees, woodland edges and field boundaries as they could be important foraging and/or commuting routes for bats. The scheme could bisect a number of these linear features, potentially adversely affecting commuting, foraging and/or roosting bats. The survey would involve a series of transect and static surveys during periods of optimum bat activity.

4.12 Based on the findings of this survey, mitigation measures would be considered necessary; the detail of these would depend on the actual route of the scheme. The mitigation measures would be necessary to ensure legal compliance pertaining to bats and enable the scheme to proceed without causing a significant adverse effect on the local bat population.

4.13 Enhancement measures would be possible that would benefit the local bat population. The inclusion of enhancement measures would help the scheme meet the local and national planning policy. The enhancement measures may be incorporated into the landscape/habitat creation design proposals for the scheme that would aim to result in conservation gain.
5 BIBLIOGRAPHY


Figure 1.1: Plan showing the red line boundary of the scheme and the boundary of the Stage 1 Bat Inspection Survey.
Figure 3.1: Plan showing the indicative location of the trees considered to have potential to support roosting bats (sheet 1 of 6)
Figure 3.2: Plan showing the indicative location of the trees considered to have potential to support roosting bats (sheet 2 of 6)
Figure 3.3: Plan showing the indicative location of the trees considered to have potential to support roosting bats (sheet 3 of 6)
Figure 3.4: Plan showing the indicative location of the trees considered to have potential to support roosting bats (sheet 4 of 6)
Figure 3.5: Plan showing the indicative location of the trees considered to have potential to support roosting bats (sheet 5 of 6)
Figure 3.6: Plan showing the indicative location of the trees considered to have potential to support roosting bats (sheet 6 of 6)
## PHOTOGRAPHS

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<thead>
<tr>
<th>Photo No.</th>
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### Beech Tree (No 8) suitable to support roosting bats

### Oak Tree (No 9) suitable to support roosting bats
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