



2017 Statement for Matter SC6C
- Policy SS/6 New Village at
Bourn Airfield and Ecology
Appendix

Bourn Airfield, Cambridge

For

**Countryside Properties
Plc**

Project No.: BCOU110

February 2017

2017 Statement for Matter SC6C - Policy SS/6 New Village at Bourn Airfield and Ecology Appendix

Issues and initial response:

iii. Paragraph 6m: Should there be a reference to the provision of a high degree of connectivity between existing green corridors and ecological networks?

- Rummey to comment regarding master plan drivers, objectives and design principles.
- The Council's SA confirms that in terms of 'Green Infrastructure the site is awarded a Green score. It states that "development could deliver significant new green infrastructure within the AAP area".

iv. Paragraph 6q: Is there a reasonable prospect that the effect of the development on the ecology and biodiversity of the site could be adequately mitigated?

- CP consider that the effect of the development on ecology and biodiversity can be adequately mitigated on site. (Refer to summary in Appendix prepared by Thomson Ecology Ltd)
- A comprehensive suite of ecology surveys have been undertaken, to enable the effect of the development on ecology to be fully understood in advance of the production of the ES Ecology Chapter and Ecological Mitigation and Management Strategy. The key results of the ecological surveys will influence the master plan and detailed layout from the outset, to ensure that mitigation is embedded into the design and to ensure that sensitive areas can be suitably protected and enhanced.
- The location of the proposed development within the site is largely on PDL and arable land which has limited suitability for many protected species. Furthermore, a suitably large area to the south of the site will be used to provide receptor sites and further ecological enhancements for biodiversity (in combination with the plans for SUDs).
- Habitat connectivity for species such as GCN, reptiles, bats and other wildlife will be maintained through the on site habitat buffers, additional woodland belt planting and enhancement of waterways and creation of SUDS. A wider and more general assessment of the off site ecological networks and green corridors could be undertaken at the planning application stage should this be required.

Ecology Summary Appendix (for Statement on Matter SC6C - Policy SS/6 New Village at Bourn Airfield)

- 1.1.1** A Preliminary Ecological Appraisal (PEA) of the Bourn Airfield site was undertaken by Catherine Bickmore Associates Ltd. in September 2012 to identify constraints and opportunities (Catherine Bickmore Associates Ltd., 2012). The field survey reported that the survey area is predominantly arable land, with broadleaved plantation woodland/shelter belts located around the site boundaries, the largest of these being Bucket Hill Plantation, located to the south-east of the survey area, shown on Figure 1. Hedgerow, improved grassland, watercourses and ponds, tall ruderal and ornamental planting habitats, building and hard standing were also recorded across the site. A desk study within the PEA reported that one locally designated County Wildlife Site (CWS), Bucket Hill Plantation Grassland, is present within the survey area and that Eversden and Wimpole Woods SSSI and SAC, designated for its population of barbastelle bats, is present 5km to the south of the survey area. Further statutory and non-statutory designated sites, including SSSIs and LNRs were also identified during this desk study. Suitable habitat within the survey area for bats, great crested newts, reptiles, badgers, barn owl, breeding birds, invertebrates and wintering birds was also recorded.
- 1.1.2** Thomson Ecology undertook a walkover of the Bourn Airfield site in November 2013 to develop a better understanding of the habitats and their potential to support protected species, to inform the further ecological surveys required to establish the presence and distribution of a wide range of legally protected species and other species of conservation concern.
- 1.1.3** Thomson Ecology subsequently undertook a range of protected species surveys at the Bourn Airfield site from 2014 onwards. The initial 2014 surveys reported the presence of two wintering bird species (redwing and fieldfare) listed on Schedule 1 of the Wildlife and Countryside Act 1981, as amended, within the survey area (Thomson Ecology Ltd., 2014a); no signs of active use by water voles within the survey area (Thomson Ecology Ltd. 2014b); 57 badger setts, including two main setts, within the survey area (Thomson Ecology Ltd. 2014c); the presence of grass snake within the survey area (Thomson Ecology Ltd. 2014d); the presence of great crested newt in three ponds within the survey area (Thomson Ecology Ltd. 2014e); and confirmed the presence of 10 bat roosts in four buildings within the survey area (Thomson Ecology Ltd. 2014f).
- 1.1.4** Thomson Ecology undertook further protected species surveys at Bourn Airfield between 2015 and 2017 to update the results of the previously mentioned reports. The individual ecological survey reports which are in progress will include the full results of the surveys along with avoidance, mitigation and enhancement measures recommended for the development to comply with relevant biodiversity legislation and planning policy. All of the 2015 to 2017 ecological report updates are to be included within the ES Chapter Appendix (Thomson Ecology Ltd., 2017b). The main findings of the survey updates include the following:
- Signs of active water voles were identified within the survey area;
 - Four additional great crested newt breeding ponds were identified within the survey area (including a 250m buffer area of the development site) and great crested newt population size class estimates indicated that four ponds have a medium population and three ponds have a small population of great crested newts;

- The reptile habitat suitability assessment found the proposed development site to be comprised of unsuitable, poor, good and exceptional quality habitat for grass snake (the only species recorded on site). Reptile presence/ likely absence surveys were completed in additional areas of the site which had not previously been surveyed, a peak count of two grass snakes were recorded in these areas;
- Trees located within the development area and a buffer zone were subject to an updated ground level tree assessment survey; subsequent hibernation checks and dusk emergence and dawn return to roost surveys found all suitable trees to have a likely absence of roosting bats;
- Bat roosts of barbastelle and Natterer's were identified within trees within the Bucket Hill Plantation and adjacent woodlands within the survey area (in areas to be retained and protected);
- A total of twelve bat species or groups of species were identified during static monitoring and activity transects on site; activity was found to be highest in the Bucket Hill Plantation and around boundary features such as hedges and tree lines;
- Commuting corridors and roosts of barbastelle bats and other bat species were identified through bat radio tracking surveys;
- One building, B13, located within the development footprint was confirmed as a common pipistrelle summer roost (B13 was not found to be in use during the hibernation monitoring surveys);
- White letter hairstreak was identified on site to the west of the site in an area with elm trees;
- A hazel dormouse habitat walkover survey confirmed that the survey area is not considered suitable habitat for dormouse;
- 59 bird species were recorded within the survey area during the 2016 breeding bird surveys, this included 28 species for which on site breeding was confirmed, 10 species for which breeding was probable, 17 species for which breeding was possible and four non-breeding species. Twenty-seven species of conservation interest were found, with 13 of these being Species of Principal Importance (SPI); and
- The results of the first two wintering bird survey visits of the 2016/17 surveys identified forty-eight bird species within the survey area, which includes twenty-three birds of conservation interest.

Main Constraints and Recommendations

- 1.1.5** An Ecological Constraints and Opportunities Plan (ECOP) has also been prepared for the site to inform the masterplan design process (Thomson Ecology Ltd., 2016a). The ECOP outlined the ecological constraints associated with the proposed development, designated sites and protected habitats and species on site with recommendations for the protection and enhancement of features of ecological value, including the Bucket Hill Plantation Grassland CWS (see Figure 1).
- 1.1.6** An outline of the main recommendations and constraints is provided below. Updated avoidance, mitigation and enhancement measures will be summarised and detailed further within an Ecological Mitigation and Management Strategy (EMMS) (Thomson Ecology Ltd., 2017a).

Designated sites and bats

- 1.1.7 The proposed development site is within the Impact Risk Zone (IRZ) of Eversden and Wimpole Woods SAC and SSSI and is of a type that is cited as having potential impacts. The Local Planning Authority (LPA) will therefore be required to consult Natural England about potential impacts from the proposed development on the SAC/SSSI. It is therefore recommended that Natural England be consulted for its views on such impacts and that its views are addressed in the OPA submission.
- 1.1.8 As Eversden and Wimpole Woods SAC (and SSSI), is designated for its maternity colony of barbastelle bat, it is recommended that all habitat used by barbastelle bats within the site boundary, particularly those identified during the bat radio tracking surveys, be avoided in the design and construction and be retained, protected and enhanced within the proposed development (this includes Bucket Hill Plantation). A sensitive lighting scheme will be implemented to ensure that dark corridors are present on site in suitable locations. Important commuting routes will be widened and connectivity will be improved through woodland infill planting around the site boundary. Access into woodlands will be managed through fencing, the creation of alternative pathways, and woodland buffer planting (tree planting, thorny shrub planting, waterway creation). More detailed recommendations in relation this are to be included within the bat radio tracking report for the site which is to be included within the ES Chapter Appendix.
- 1.1.9 It is recommended that the design and construction of the proposed development avoids potential effects on the Caldecote Meadows SSSI (which adjoins the site in the south east corner) by avoiding and retaining a habitat buffer between any construction activities and the SSSI. It is further recommended that Natural England be consulted to establish if further avoidance and mitigation measures may be required to protect the SSSI and its special interest feature grassland.

Reptiles and Great crested Newts

- 1.1.10 Although reptiles have been found using the arable field margins and other areas of suitable habitat, sufficient land can be retained and enhanced to maintain the reptile populations. Suitable on site receptor sites will be created on land which is currently unsuitable arable farmland. All great crested newt breeding ponds are located outside of the footprint of the development and will be retained and protected. Terrestrial ecological translocation and mitigation will be required in some areas, in order to safeguard great crested newts and reptiles in terrestrial habitat. Suitably wide buffer areas around the site and GCN breeding ponds will be protected and enhanced for ecology (see Figure 1).

Birds

- 1.1.11 Considerable landscaping and planting proposals should improve the availability of habitat on site for breeding birds. There will be habitat loss for common wintering birds (mainly farmland) which cannot be replaced on a like for like basis within the site; however due to the level of importance of these species, in combination with mitigation and the arable nature of the surrounding land off site, this habitat loss is considered to be of only a minor significant impact at the local scale.

Mammals

- 1.1.12 The majority of the badger sets will be retained and protected during the development process. Habitat for water voles will be temporarily impacted, however the creation of new water ways

should improve habitat availability (see further details below). One bat roost will be lost (a common pipistrelle summer roost in building B13).

Connectivity

SUDs on site and water ways on /around the site will be enhanced for water voles (through habitat creation, planting, mink control and improving connectivity for example). The woodlands on site will be widened and connectivity between them and off site habitat tree lines will be improved through additional tree / woodland belt planting and the maintenance of dark corridors (to enhance the site for bats, badgers and other commuting species). Habitat connectivity for great crested newts and reptiles will be maintained through the interconnected habitat buffers around the site, which will be enhanced from farmland/field margins into wider belts of wildlife habitats through appropriate planting and management.

References

- 1.1.13 Thomson Ecology Ltd., 2014a. Wintering Birds Survey. Report ref: BCOU109/001/001
- 1.1.14 Thomson Ecology Ltd., 2014b. Water Vole Survey. Report ref: BCOU109/003/001
- 1.1.15 Thomson Ecology Ltd., 2014c. Badger Survey. Report ref: BCOU109/004/001
- 1.1.16 Thomson Ecology Ltd., 2014d. Reptile Survey. Report ref: BCOU109/005/001
- 1.1.17 Thomson Ecology Ltd., 2014e. Great Crested Newt Survey. Report ref: BCOU109/006/001
- 1.1.18 Thomson Ecology Ltd., 2014f. Bat Surveys. Report ref: BCOU109/007/001
- 1.1.19 Thomson Ecology Ltd., 2016a ECOP. Report ref: BCOU109 / 014 / 001 /001
- 1.1.20 Thomson Ecology Ltd. 2017a. EMMS. Report ref: BCOU110/002/001 (in progress)
- 1.1.21 Thomson Ecology Ltd. 2017b. ES Chapter and Technical Appendices (Protected Species Report updates) Report ref: BCOU110/002/002 (in progress)

Legend

Proposed Bat Commuting Corridors

Proposed Avoidance / Mitigation / Enhancement

-  Habitat Enhancement for GCN, Reptiles and Water Vole
-  Low Intensity Arable and Crop Field Margins / Grazed Pasture
-  Parkland, Ponds, Wetland and Scattered Trees
-  Parkland, Trees and Waterway
-  Road Underpass / Overpass / Roadside - Buffer Planting
-  Woodland Buffer, Tree and Shrub Planting
-  Woodland Enhancement

DRAFT

Site Grid Reference: 534144 258912
Site Postcode: CB23 2TQ

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Drawing Ref: BCOU110/22675/1

Scale at A3: 1:10,000

Drawn: DJ	Checked: AS
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Date: 01/02/2017	Date: 01/02/2017
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Client: Countryside Properties Plc

Figure Number: 1

Figure Title: Proposed Ecology Mitigation Plan

Bund - South Facing
(Reptiles, Birds, Badgers and Invertebrates)

Enhanced Hedgerow / Trees
(Bats, Breeding Birds and Badgers)

Enhance Hedgerows, Trees, Grassland and Ditch
(Bats, Breeding Birds, Badgers and Water Voles)

Buffer Belt of Mosaic of Habitats (Bats, Breeding Birds, GCN, Inverts and Reptiles)

Barn Owl Boxes / Bespoke Bat Barn (Bats and Breeding Birds)

Habitat Enhancement (GCN and Reptiles)

Orchard

Potential Receptor Site (Reptiles)

Scattered Shrub and Tree Planting (Bats, Breeding Birds and Badgers)

SUD and Wetland creation - ponds, lagoons, islands, ditch network and reedbeds (Bats, Breeding Birds, GCN, Inverts, Reptiles and Water Vole)

Arable Field (Overwintering Birds and Badgers)

Woodland Belt Widening and Enhancement to Improve Connectivity (Bats, Breeding Birds and Badgers)

Restoration of Neutral Grassland in CWS (Breeding Birds, Inverts and Reptiles)

Enhance Bucket Hill Plantation Woodland and World War II Bunkers for Bats

