

Rochester Airport - Innovation  
Park Medway  
Ecological Impact Assessment (EclA)

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## 1 Introduction

- 1.1 This chapter presents the approach to and findings of the ecological impact assessment (EclA).
- 1.2 The Chapter details the basic ecological description of the Site, legislative and policy context, assessment methods, current baseline conditions of the Site, evaluation of resources, and assessment of Significant Effects before and after mitigation, residual effects and in combination with other proposals.

### Site description

- 1.3 The Site overall comprises a combination of semi-natural habitats and built development, the former dominates much of the Site, however the different Parcels (1, 2, 3 and 4) have varying land use types. Parcel 1 (the largest Parcel within the Site), comprises grassland and scrub, whereas Parcel 2 to the east is a large area of hardstanding (disused car park) with small amounts of low growing vegetation. Parcel 3 is also an area of hard standing, but smaller in size than Parcel 2, with ruderal vegetation growing upon it. Parcel 4 is a caravan storage park, with short mown amenity grassland and a dense band of deciduous woodland around the boundaries, which connects off-site to the west. The location of parcels is shown in Appendix 1 (Figure 1a and 1b).
- 1.4 The Site overall is located within a lowland urban setting, with main roads, commercial buildings and residential housing present in the immediately surrounding area. The topography across the Site is consistent, being relatively flat with a slight incline where Parcel 4 is located.

### Scheme description

- 1.5 The Innovation Park Medway allows for the erection of up to 101,000 square metres of Business (Use Class B1) and General Industrial (Use Class B2) floor space with associated means of access, distributor and service roads, multi-storey parking facilities, footpaths and cycle ways, sustainable drainage systems and landscaping.

## 2 Legislative & Planning Policy Context

- 2.1 This section sets out the legislative and planning policy context of the Site by identifying the key legislation and biodiversity policies which are applicable to the development on Site. There are a number of national, regional and local planning policies and guidance documents that seek to protect nature conservation and ecology and hence are relevant when considering the effects of the Proposed Development.

### Legislative Context

- 2.2 Relevant legislation includes the following (see Appendix 1):

- ) The Conservation of Habitats and Species Regulations 2017 (as amended)
- ) Natural Environment and Rural Communities (NERC) Act 2006
- ) The Wildlife and Countryside Act 1981 (as amended)
- ) The Countryside Rights of Way Act 2000
- ) The Protection of Badgers Act 1992

### Planning Policy

- 2.3 Relevant national, regional and local planning policies/planning documents are listed below.

### National Planning Policy Framework

- 2.4 The Government published the National Planning Policy Framework (NPPF) on 24 July 2018. Text excerpts from the NPPF are shown where they may be relevant to planning applications and biodiversity including protected sites, habitats and species.
- 2.5 The Government sets out the three objectives for sustainable development (economy, social and environmental) at paragraphs 8-10 to be delivered through the plan preparation and implementation level and 'are not criteria against which every decision can or should be judged.' At paragraph 8c) the planning system's environmental objective refers to 'protecting and enhancing our natural, built and historic environment' and to 'helping to improve biodiversity'
- 2.6 In conserving and enhancing the natural environment, the NPPF (Paragraph 170) states that 'planning policies and decisions should contribute to and enhance the natural and local environment' by:
- ) Protecting and enhancing...sites of biodiversity value... '(in a manner commensurate with their statutory status or identified quality in the development plan)'.
  - ) Recognising the wider benefits from natural capital and ecosystem services including trees and woodland.
  - ) Minimising impacts on and providing net gains in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.
  - ) Preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability.
- 2.7 In respect of protected sites, at paragraph 171, the NPPF requires local planning authorities to distinguish, at the plan level, '...between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value...take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.'

- 2.8 Paragraph 174 refers to how plans should aim to protect and enhance biodiversity. Plans should: 'identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity [a footnote refers to ODPM Circular 06/2005 for further guidance in respect of statutory obligations for biodiversity in the planning system], wildlife corridors and stepping stones that connect them and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation;' and to 'promote the conservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.'
- 2.9 Paragraph 175 advises that, when determining planning applications, '...local planning authorities should apply the following principles:
- a. if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
  - b. development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments) should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
  - c. development resulting in the loss or deterioration of irreplaceable habitats, (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
  - d. development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.'
- 2.10 In paragraph 176, the following should be given the same protection as habitats sites<sup>1</sup>:
- i. potential Special Protection Areas and possible Special Areas of Conservation
  - ii. listed or proposed Ramsar sites; and
  - iii. sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.'
- 2.11 In paragraph 177 the NPPF refers back to sustainable development in relation to appropriate assessment and states: 'the presumption in favour of sustainable development does not apply where development requiring appropriate assessment because of its potential impact on a habitats site is being planned or determined.'
- 2.12 In paragraph 178, the NPPF refers to planning policies and decisions taking account of ground conditions and risks arising from land instability and contamination at sites. In relation to risks associated with land remediation account is to be taken of 'potential impacts on the natural environment' that arise from land remediation.
- 2.13 In paragraph 180 the NPPF states that planning policies and decisions should ensure that development is appropriate to the location and take into account likely effects (including cumulative) on the natural environment and , in doing so, they 'should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.'
- 2.14 Paragraph 98 of Government Circular 06/2005 advises that:

<sup>1</sup> Habitats sites are defined in the glossary as 'Any site which would be included within the definition at regulation 8 of the Conservation of Habitats and Species Regulations 2017 (as amended) for the purpose of those regulations, including candidate Special Areas of Conservation, Sites of Community Importance, Special Areas of Conservation, Special Protection Areas and any relevant Marine Sites.'

*"the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat."* See Appendix 1.

### Local Plan Policies

- 2.15 The Core Strategy dated September 2007, includes *Annex A: Planning Policy Guidance Notes and Planning Policy Statements*. PPS9: Biodiversity and Geological Conservation has been replaced by the NPPF and is no longer relevant to this development. The following policies are relevant to this study:

### Planning Practice Guidance

- 2.16 The Government's PPG provides further guidance and interpretation on the NPPF (July 2018) and planning legislation.
- 2.17 *"Paragraph 174: To protect and enhance biodiversity and geodiversity, plans should:*
- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and*
  - b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.*
- 2.18 *Paragraph 175: When determining planning applications, local planning authorities should apply the following principles:*
- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
  - b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
  - c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons<sup>58</sup> and a suitable compensation strategy exists; and*
  - d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.*
- 2.19 *Paragraph 176: The following should be given the same protection as habitats sites:*
- a) potential Special Protection Areas and possible Special Areas of Conservation;*
  - b) listed or proposed Ramsar sites<sup>59</sup>; and*

*c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.*

2.20 *Paragraph 177: The presumption in favour of sustainable development does not apply where development requiring appropriate assessment because of its potential impact on a habitats site is being planned or determined."*

### 3 Assessment Methods

#### Sources of Information and Guidance Documents

- 3.1 The baseline data used to inform this Ecological Impact Assessment (EclA) were obtained from the following sources:
- ) A desk study was completed to gain information on the position of designated sites of nature conservation interest in relation to the Site, in line with Chartered Institute of Ecology and Environmental Management (CIEEM) ecological impact assessment guidance (CIEEM, 2016).
  - ) Records of protected species and species of conservation concern (e.g. Species of Principal Importance (SPI) for the conservation of biodiversity in England listed in accordance with Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006) were collated.
  - ) A review of previous ecology survey reports for Rochester Airport (KB Ecology, 2018a, b and c) was undertaken to identify previous baseline conditions on Site and ascertain which surveys require updating or completing if not previously undertaken.
  - ) Information on protected species in relation to the Site with a 2 km radius of the Site was provided by Kent and Medway Biological Records Centre (KMBRC) July 2017.
  - ) The desk study also made use of publically available internet mapping and aerial photography resources to assess the context of the site including the Multi-Agency Geographic Information for the Countryside (MAGIC) database to identify ponds within 250 m of the Site (to assist in determining the possibility of the presence of great crested newts *Triturus cristatus* (GCN) and any granted European Protected Species Licence applications within 2 km of the Site boundary.
  - ) Phase 1 habitat data were collected via a survey of the Site carried out by BSG Ecology in March 2018 (Appendix 1).
  - ) Protected species and botanical information for the Site was obtained through a series of field surveys carried out by BSG Ecology during the period May 2018 until time of writing of the report. Surveys are still ongoing over summer and autumn 2018, and addendum reports will be provided upon completion.

#### Study Area

- 3.2 The study area for an EclA should cover not only the Site, but also areas over which the Proposed Development will potentially exert biophysical changes (both direct and indirect impacts) that might result in an effect upon valued ecological features i.e. the zone of influence. The zone of influence for the ecological features falls within the Site and immediately adjacent habitats only based on the limited semi-natural habitats in the immediately surrounding area. The Study Area for habitats and the majority of species under consideration has been limited to the Site and areas immediately adjacent to this. This is because for many species and habitats, effects are likely to be limited to the footprint of the proposed development, given the limited size of the development and the habitats on Site being atypical of adjacent areas and habitats and therefore with little connectivity beyond the Site.
- 3.3 The desk study extended to 10 km from the Site boundary for designated sites (some of which are important for Species of Principal Importance (SPI) or Schedule 1 breeding and overwintering birds that may also visit land within or around the Site), and to 2 km for protected and notable species.

## **EclA Methodology**

### ***EclA Assessment Process***

- 3.4 The evaluation and assessment within this chapter has been undertaken with reference the 2016 Guidelines for Ecological Impact Assessment in the United Kingdom developed by the Chartered Institute of Ecology and Environmental Management (CIEEM, January 2016). Although this is recognised as industry standard guidance for ecological assessment, the guidance itself notes that it is not a prescription about exactly how to undertake an ecological impact assessment (EclA); rather, it aims to “*provide guidance to practitioners for refining their own methodologies*”.

### ***Important Ecological Features***

- 3.5 A first step in EclA is determination of which ecological features (habitats, species, ecosystems and their functions/processes) are important. Important features should then be subject to detailed assessment if they are likely to be effected by the Proposed Development. It is not necessary to carry out detailed assessment of features that are sufficiently widespread, unthreatened and resilient to project effects, such that there is no risk to their viability.
- 3.6 Ecological features can be important for a variety of reasons and the rationale used to identify these is explained below. Importance may relate, for example, to the quality or extent of designated sites or habitats, to habitat/species rarity, to the extent to which they are threatened throughout their range, or to their rate of decline.

### ***Evaluation: Determining Importance***

- 3.7 The importance of an ecological feature should be considered within a defined geographical context. The following frame of reference has been used in this case:
- ) International (European).
  - ) United Kingdom.
  - ) England.
  - ) Regional (South-East England).
  - ) County (Kent).
  - ) Local (Chatham District).
  - ) Site (the Site and immediately adjacent areas).
- 3.8 Taking into account the CIEEM guidance, features of less than Local importance are generally considered unlikely to trigger a mitigation or policy response in EclA terms. However, where it is helpful to characterise and evaluate features within the Site, this assessment also uses the term “site importance”. This includes features which are assessed to be of value only in the context of the Application Site (and its immediate zone of influence). Features of site importance are typically unlikely to require further assessment for the reasons set out above.

### ***Evaluation of Resources***

- 3.9 The assessment of ecological effects focuses on those ecological features potentially subject to significant effects (adverse or beneficial) as a result of development.
- 3.10 Prior to the assessment there is a process of resource evaluation, which takes into account both the likelihood of an effect on a feature occurring and the biodiversity importance of that feature. Where it is clear that significant effects are very unlikely or have a negligible chance of occurring, these features are scoped out of further assessment. Features which could be significantly affected by the proposals are taken forward for further assessment.

### ***Assessment of Significance***

- 3.11 The assessment of significance process involves:



- ) Identifying and characterising significant effects.
  - ) Incorporating measures to avoid and mitigate (reduce) these significant effects.
  - ) Assessing the significance of any residual effects after mitigation.
  - ) Identifying appropriate compensation measures to offset significant residual effects.
  - ) Identifying opportunities for ecological enhancement.
- 3.12 It is only necessary to assess and report significant residual effects (those that remain after mitigation measures have been taken into account). However it is good practice for the EclA to make clear both the potential significant effects without mitigation and the residual significant effects following mitigation. This process of assessment without mitigation helps to identify necessary and relevant mitigation measures that are proportionate to the size, nature and scale of anticipated effects.
- 3.13 The assessment should consider, as appropriate: direct, indirect, secondary and cumulative effects and whether these are short, medium, long-term, permanent, temporary, reversible and / or irreversible. In this chapter, positive effects are referred to as beneficial; negative effects as adverse. The assessment of significant effects then takes into account the baseline conditions to describe:
- ) how the baseline conditions will change as a result of the project and associated activities.
  - ) cumulative effects of the proposal and those arising from other developments.

### ***Significant Effects***

- 3.14 The CIEEM guidance sets out information in paragraphs 5.25 through to 5.29 about the concept of ecological significance and how it relates to the ability to deliver biodiversity conservation objectives for a given feature.
- 3.15 Significant effects are qualified with reference to an appropriate geographic scale. The scale of significance of an effect may or may not be the same as the geographic context in which the feature is considered important.
- 3.16 The nature of the identified significant effects on each assessed feature is characterised. This is considered, along with available research, professional judgement about the sensitivity of the feature affected, and professional judgement about how the significant effect is likely to affect the site, habitat, or population's structure and continued function. Where it is concluded that an effect would be likely to reduce the importance of an assessed feature, it is described as significant. The degree of significance of the effect takes into account the geographic context of the feature's importance and the degree to which its interest is judged to be affected.
- 3.17 CIEEM guidance encourages the expression of significance of ecological effects with reference to a geographic frame of reference, as described above. However, other disciplines within this Environmental Statement use criteria based on the magnitude of effect. Table 1 provides a means of relating the two approaches and is provided in order to allow the ecological impact assessment to be integrated into the wider EIA without compromising the CIEEM best practice approach.

Table 1: Relationship between EclA and wider EIA assessment of significance

| <b>Geographic scale of effect (as per CIEEM 2016 guidance)</b>                  | <b>Magnitude of effect</b> |
|---|----------------------------|
| International, European, national or regional                                   | Large                      |
| Regional, metropolitan, county, vice-county or other local authority-wide area. | Medium                     |
| Local   | Small                      |



| Geographic scale of effect (as per CIEEM 2016 guidance) | Magnitude of effect |
|---|---------------------|
| Site or below   | Negligible          |

### ***Mitigation***

- 3.18 Where significant effects have been identified, the mitigation hierarchy has been taken into account, as suggested in the 2016 EclA Guidelines, which sets out a sequential approach of avoiding significant effects where possible, applying mitigation measures to minimise unavoidable significant effects and compensating for any remaining significant effects. Once avoidance and mitigation measures, and any necessary compensation measures, have been applied, and opportunities for enhancement incorporated, residual significant effects have then been identified. This approach is reflected across UK planning policy at a country level.
- 3.19 Where mitigation and compensation has been proposed, this is proportionate with the geographical scale at which an effect is significant, "For example, mitigation and compensation for effects on a species population significant at a county scale should ensure no net loss of the population at a county scale. The relative geographical scale at which the effect is significant will have a bearing on the required outcome which must be achieved..." (CIEEM, 2016. Paragraph 5.29).

### ***Assumptions and Limitations***

- 3.20 Baseline surveys carried out at the Site have taken into account the current industry standard guidance for specific features and therefore provide a strong and robust basis for the identification of important ecological features. However, since they involve a finite number of visits to the Site, no survey can provide absolute confidence about the presence or absence of species at a site, or a completely accurate knowledge about the distribution of species across the Site.
- 3.21 The assessment is based on baseline survey results that are accurate at the time of survey. However, the baseline can change over time due to the mobility of some species, changes in land management and natural processes of vegetation succession. Baseline data for this assessment has been collected from numerous visits to the Site. It is therefore considered that the baseline data is up-to-date for the purpose of conducting a thorough assessment.
- 3.22 All surveys have been completed at the time of writing, with the exception of the autumn static bat detector survey for which field data collection was still on-going, but was completed on the 14<sup>th</sup> September. As such the assessment of impacts on bats presented in this report is based on Spring and Summer static detector surveys and Spring, Summer and Autumn walked transect surveys. The results of the final autumn static detector survey will be reported in a short addendum as soon as the data has been analysed. Any changes to the bat assessment presented here will be identified.

## 4 Baseline conditions

### Current baseline

- 4.1 Full details of the baseline survey methods and survey results are provided in the Ecology Baseline Report; Appendix 1. The report sets out the following;
- ) details on designated sites within 10 km,
  - ) details of the desk study of protected/notable species within 2km of the Site, and
  - ) details of all the protected species and botanical species surveys undertaken on the Site.
- 4.2 A summary of the ecological baseline on Site is provided in Tables 2 to 4 below.

### Designated Wildlife Sites

- 4.3 The proximity and interest features of statutory and non-statutory designated sites within 10 km of the Site are shown in table 2.

Table 2: Designated Wildlife Sites.

| Site  | Details   | Distance and direction from site |
|---|---|----------------------------------|
| <i>Statutory designated sites within 10 km</i>                            |   |                                  |
| Wouldham To Detling Escarpment Site of Special Scientific Interest (SSSI) | Chalk escarpment, which supports a number of rare and scarce species of plants and invertebrates. | 1.7 km west                      |
| Peters Pit Special Area of Conservation (SAC)                             | Old chalk quarry with large population of Great crested newt <i>Triturus cristatus</i> .          | 2.5 km west                      |
| North Downs SAC   | Beech woodland, steep slopes, grassland and scrub mosaic habitats.                                | 3.5 km south-west                |
| Medway Estuary & Marshes Special protection Area (SPA) & Ramsar Site      | Estuary important for summer breeding birds and overwintering waders.                             | 5.9 km north-east                |
| Queendown Warren SAC  | Grassland, rare and scarce species, orchids.  | 7.5 km east                      |
| Thames Estuary and marshes SPA & Ramsar                                   | Marshes, intertidal areas and mudflats, wintering waterbirds and migrating birds.                 | 9.8 km north                     |
| <i>Non-statutory sites within 2km</i>                                     |   |                                  |
| ME06 Luton Banks Chatham Local Wildlife Site (LWS)                        | -   | 1 km east                        |
| TM09 Bridge Woods Burham LWS  | -   | 0.3km west                       |

**Habitats**

- 4.4 Habitats present within the Site are described in Table 3. A Phase 1 habitat map is provided in Appendix 1.

Table 3: Habitats present on Site.

| Habitat                         | Description  |
|---------------------------------|--|
| Semi-improved neutral grassland | <p>The grassland covers the majority of Parcel 1 on the Site. The grassland is managed as a meadow with a single cut in late summer only. There is no grazing.</p> <p>The grassland survey indicates that the vegetation shows the greatest affinity with the MG1e <i>Arrhenatherum elatius</i> grassland, <i>Centaurea nigra</i> sub-community.</p> |
| Scrub                           | An area of scrub lies to the north of Parcel 1 in a 6 m (approx.) wide belt along the northern boundary. The scrub lies upon a steep earth bank, approximately 1 m high, and comprises hawthorn <i>Crataegus monogyna</i> , elder <i>Sambucus nigra</i> , butterfly-bush <i>Buddleia davidii</i> , and bramble <i>Rubus fruticosus</i> .             |
| Woodland                        | Broadleaved semi-natural woodland lies around the boundary of Parcel 4 to the south. The woodland comprises semi-mature hornbeam <i>Carpinus betulus</i> , oak <i>Quercus robur</i> , ash <i>Fraxinus excelsior</i> , sweet chestnut <i>Castanea sativa</i> and cherry <i>Prunus avium</i> , with a dense semi-natural understorey.                  |
| Amenity grassland               | This habitat type is present across the runway areas of Parcel 1 on site and within Parcel 4 (the caravan park). Due to the frequent cutting maintaining a very short sward, an appraisal of botanical species present has not been undertaken.  |
| Tall ruderal                    | This habitat type is located within Parcel 3 to the south-east. The disused car park comprises concrete with patches of ephemeral and ruderal vegetation.  |
| Hard standing                   | <p>Hard standing covers Parcel 2 of the Site to the north. The disused car park comprises concrete. A small amount of low-growing vegetation is present.</p> <p>This habitat is not considered to qualify as 'Open Mosaic Habitats on Previously Developed Land'.</p>  |

**Species on the Site / Nearby**

- 4.20 The protected and/or notable species that are known to or potentially occur on Site are detailed in Table 4 below. Further text is provided below the table with regards to other protected species which are considered unlikely to be present within the Site.

Table 4: Protected/notable species recorded in the desk study and/or with potential to be present or confirmed on Site.

| Species | Desk Study  | Site Survey  |
|---------|---|--|
| Bats    | Kent and Medway Biodiversity Records Centre (KMBRC) returned records of | The ground level tree assessment (GLTA) identified four trees with bat |

| Species        | Desk Study   | Site Survey  |
|----------------|--|--|
|                | <p>the following bat species: Serotine <i>Eptesicus serotinus</i>, Daubenton's <i>Myotis daubentonii</i>, whiskered <i>Myotis mystacinus</i>, Natterer's <i>Myotis natterii</i>, leislars <i>Nyctalus leisleri</i>, noctule <i>Nyctalus noctula</i>, Nathusius' <i>Pipistrellus nathusii</i>, common pipistrelle <i>Pipistrellus pipistrellus</i>, soprano pipistrelle <i>Pipistrellus pygmaeus</i>, brown long-eared <i>Plecotus auritus</i>.</p> <p>Previous survey work recorded at least seven species of bat in and around Parcel 4 over a 14 night recording period (KB Ecology, 2018a).</p> | <p>roosting potential; however these trees lie outside of the development footprint and are therefore unlikely to be impacted.</p> <p>The Site has potential to be used by foraging and commuting bats, particularly the woodland habitats to the south.</p>   |
| Dormouse       | <p>Records of dormouse <i>Muscardinus avellanarius</i> have been returned by KMBRC from between 1994-2008; the majority are from Burham, Bridge and Wouldham Woods within 1km of the western site boundary.</p> <p>Dormouse have previously been recorded on Site within the woodland around Parcel 4 to the south (KB Ecology, 2018b).</p>  | <p>The woodland around Parcel 4 is considered likely to still support dormouse as it connects beyond the Site to woodland along Rochester Road, leading north.</p>   |
| Breeding birds | <p>KMBRC returned records of 95 species of protected or notable bird recorded within 2km of the Site.</p> <p>No bird surveys on the Site have been previously completed.</p>   | <p>The grassland on Site is confirmed as supporting breeding skylark <i>Alauda Arvensis</i>; four breeding territories were identified in Parcel 1. The woodland around Parcel 4 and the scrub along the north boundary of Parcel 1 also offer suitable bird nesting habitat.</p>                              |
| Reptile        | <p>KMBRC returned records of four species of reptile within 2km of the Site, including slow worm <i>Anguis fragilis</i>, grass snake <i>Natrix natrix</i>, adder <i>Vipera berus</i> and common lizard <i>Zootoca vivipara</i>. Grass snake and slow worm have historically been recorded at Rochester Airport (1981-1990).</p> <p>During previous surveys in 2017, common lizard were recorded along the scrubby bank in Parcel 1 (KB Ecology, 2018c).</p>  | <p>The grassland and scrub bank in Parcel 1, the ruderal vegetation and woodland edge in Parcel 3 and woodland in Parcel 4 are all considered to offer suitable habitat for reptiles.</p> <p>Thus far, four out of the seven reptile survey have been undertaken, however no reptiles have yet been found.</p> |
| Badger         | <p>KMBRC returned several records of badger <i>Meles meles</i> within 2km of the Site, the most recent record from 2006. None of these records are from the Site itself</p>  | <p>No badger setts have been located on Site and no obvious signs of badger have been recorded. Badgers are therefore considered likely to be absent from the Site, but given that badger are a common and widespread mammal, it is possible that they infrequently pass</p>                                   |

| Species | Desk Study | Site Survey |
|---------|------------|-------------|
|         |            | through it. |

***Species recorded in desk study but unlikely to be on site***

**Great crested newt**

- 4.5 No ponds are present on Site and none lie within 250 m of it. KMBRC have returned four records of great crested newt *Triturus cristatus* within 2 km of the Site, the nearest and most recent being from a location approximately 1 km to the north-east (2007). There is no direct connectivity from the location of this record to the Site. It is considered highly unlikely that newts would be present on the Site, particularly as the Site is isolated from any potential newt ponds and the surrounding main roads and industrial area will act as a barrier to newt movement potentially from the wider landscape.

**Further Survey**

- 4.6 Not all surveys necessary for the completion of this ecology assessment are complete at the time of writing. Surveys which are still in process include the following;
- ) Autumn bat static monitoring surveys.
- 4.7 The results of these further surveys will be provided in an addendum report once complete in autumn 2018.

## 5 Identification of Important Features

- 5.1 Ecological features listed in Table 5 have been evaluated for their conservation importance and as stated are either 'scoped in' or 'scoped out' of further assessment. Those 'scoped in' are considered to be of sufficient importance to warrant them being carried through to the impact assessment stage. The Geographic context in which they are considered important is provided below Table 5.
- 5.2 The guidelines state that it is not necessary to carry out detailed assessment of features that are sufficiently widespread, unthreatened and resilient to project impacts such that there is no risk to their viability.
- 5.3 Of the designated sites, habitats and species identified in the desk study or through survey, also shown in Table 5 which have been 'scoped out' of further assessment are those that have been evaluated and found not to be important in the context of this assessment, meaning that they are not considered of conservation importance or they do not have potential to be significantly affected by the proposed development.

Table 5: Ecological Features on Site which have either been scoped in or scoped out of the EclA

| Feature                 | Geographic Level of Importance | Scoped in/out of Further Assessment | Justification   |
|-------------------------|--------------------------------|-------------------------------------|---|
| Designated sites        | International                  | Scoped out                          | All designated sites have been scoped out of this assessment as impacts are not considered likely to occur at the distances the designated sites are from the Site. In addition, given the nature of the proposed development being for business/commercial use, it is not considered likely that the proposals will result in increased visitor pressure to these sites, for example through recreation and dog walking. Impacts from nitrogen deposition from vehicles travelling to and from the site have also been scoped out because of the distance (over 200m) of designated sites from roads that are likely to be used by vehicles. |
| Semi-improved grassland | Local                          | Scoped in                           | The grassland (Parcel 1) shows greatest affinity with the MG1e <i>Arrhenatherum elatius</i> grassland, <i>Centaurea nigra</i> sub-community, which is characteristic of ungrazed grasslands. The low nutrient input regime combined with a low intensity mowing regime has contributed to the development of the species assemblage present. The habitat present is considered to provide a relatively extensive area of low nutrient input grassland that is of local ecological value.<br><br>The proposals will result in a loss of the grassland, approximately 10ha, which covers the majority of Parcel 1.                              |
| Lowland broadleaved     | Site                           | Scoped in                           | The lowland broadleaved woodland in Parcel 4 on the Site forms a continuous   |

| Feature           | Geographic Level of Importance | Scoped in/out of Further Assessment | Justification  |
|-------------------|--------------------------------|-------------------------------------|--|
| woodland          |                                |                                     | <p>habitat corridor on Site and provides connectivity to off-Site woodland. This habitat type is an HPI and in addition many of the trees within the woodland are protected under Tree Preservation Orders TPOs. However is considered to be of site value, based on its relatively small size (2.1 ha) compared to other areas of woodland in the local area.</p> <p>The proposed development will result in the loss of an area of this woodland (size currently not confirmed) and therefore resulting in fragmentation of the habitat.</p> |
| Amenity grassland | Negligible                     | Scoped out                          | <p>This habitat type is located across the runways in Parcel 1 and within the caravan park in Parcel 4.</p> <p>This habitat is of low ecological value (being species poor and heavily managed) and is common and widespread in the surrounding area. It does not conform to any of the priority habitat descriptions in BRIG (2011).</p> <p>No significant impact is anticipated in relation this habitat and therefore it is excluded from further assessment.</p>   |
| Scrub             | Negligible                     | Scoped out                          | <p>This habitat type is located along the northern boundary of Parcel 1.</p> <p>This habitat is of low ecological value, being small in size and lacking connectivity to any other similar habitat. However it is common and widespread in areas beyond the Site. It does not conform to any of the priority habitat descriptions in BRIG (2011).</p> <p>No significant impact is anticipated in relation this habitat and therefore it is excluded from further assessment.</p>   |
| Tall ruderal      | Negligible                     | Scoped out                          | <p>This habitat type is located across the hard standing in Parcel 3.</p> <p>This habitat is of low ecological value being species poor, and is common and widespread in the surrounding area. It does not conform to any of the priority habitat descriptions in BRIG (2011).</p> <p>No significant impact is anticipated in relation this habitat and therefore it is excluded from further assessment.</p>  |
| Bats              | Site                           | Scoped in                           | <p>All UK bats are European protected species. The Site provides foraging and commuting habitat for seven different bat species; common pipistrelle, <i>Myotis sp</i>, noctule, soprano pipistrelle, Nathusius'</p>  |

| Feature        | Geographic Level of Importance | Scoped in/out of Further Assessment | Justification  |
|----------------|--------------------------------|-------------------------------------|--|
|                |                                |                                     | <p>pipistrelle, brown long-eared and serotine bats. The majority of foraging activity is located around Parcel 4. Parcels 1, 2 and 3 are not of significant importance for foraging bats.</p> <p>The GLTA identified four trees with bat roosting potential; however these trees lie outside of the development footprint and are therefore unlikely to be impacted. Thus no impacts to roosting bats are anticipated.</p> <p>The proposed development has the potential for direct effects on bats (e.g. loss or degradation of roosting, foraging and commuting habitat and loss of individuals during site clearance /construction), and also indirect effects (e.g. degradation/fragmentation of habitats through light pollution during the occupation phase). These effects could lead to a reduction in populations of species at the Site.</p> |
| Dormouse       | County                         | Scoped in                           | <p>Dormice are European protected species. Dormice have previously been recorded within the woodland around Parcel 4. It is likely that dormice disperse around the woodland on Site and use the woodland year round during their active and hibernation periods.</p> <p>As a section of woodland is to be removed, this will result in the permanent fragmentation of dormouse habitat, which will likely limit their foraging and dispersal potential. Indirect impacts may also occur through light spill onto the woodland from the new development. These effects could lead to a reduction in population of dormouse at the Site.</p>  |
| Breeding birds | Local                          | Scoped in                           | <p>The Site contains grassland habitats and woodland which support a range of breeding bird species. These include a number of SPIs (particularly farmland birds) and Red and Amber listed species (Eaton <i>et al.</i>, 2016). All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended).</p> <p>The value of the Site for breeding birds has been assessed with reference to the numbers of breeding species using the Site (Fuller, 1980). The overall breeding bird assemblage is considered to be of Local value.</p> <p>Skylark (an SPI) is also present on Site; however it is listed as 'common' breeding species in Kent (Kent Ornithological</p>  |



| Feature                 | Geographic Level of Importance | Scoped in/out of Further Assessment | Justification   |
|-------------------------|--------------------------------|-------------------------------------|---|
|                         |                                |                                     | <p>Society, 2017).</p> <p>The proposed development has the potential to cause direct effects on breeding birds (e.g. loss of individuals and of habitat supporting this species during construction) and also indirect effects (e.g. light spill and noise and disturbance close to boundary habitats). These effects could lead to reductions in populations of these species at the Site.</p>   |
| Reptile                 | Site                           | Scoped in                           | <p>The Site supports a small population of common lizard. This species is protected from killing and injury under the Wildlife and Countryside Act 1981 (as amended) and are SPI in England.</p> <p>Development at the Site has the potential to cause direct effects on reptiles (e.g. loss of individuals and of habitat supporting these species, and habitat fragmentation during construction). These effects could lead to reductions in populations of reptiles at the Site.</p> |
| Badger                  | Negligible                     | Scoped out                          | <p>Badger and their setts are protected under The Protection of Badgers Act 1992.</p> <p>No badger setts have been identified on Site during the badger walkover survey, likewise no evidence of badger foraging was observed. Therefore badger are considered generally absent from Site, with the exception of infrequent passing through, and so no significant impact is anticipated in relation this species and therefore it is excluded from further assessment.</p>             |
| Other protected species | Negligible                     | Scoped out                          | <p>Since other protected species are considered unlikely to be present on or close to the Site, these not considered further in this assessment.</p>  |

### Future baseline

- 5.4 Without the implementation of the proposed development Parcel 1 of the Site would continue to be used by the airport as a runway and management would remain under its current regime. Parcel 2 would likely be left unused and over time more ruderal vegetation and grasses would develop across the hardstanding. Parcel 3 would also likely remain unused and the ruderal vegetation and grassland would eventually develop into scrub. The caravan park would continue to be used for its current purpose and it is likely that the amenity grassland and surrounding woodland will remain as they currently are. The Site would continue to support the species listed in Table 4.

## 6 Assessment of Likely Significant Effects

### Mechanisms of Potential significant effects

- 6.1 Potential significant effects on important ecology and nature conservation features resulting from the construction and operational phases of the proposed development are listed in Table 6.

Table 6: Mechanisms of Potential significant effects

| Phase        | Significant Effects                             | Possible Causes/Mechanisms   |
|--------------|---|--|
| Construction | Habitat loss                                    | Ground preparation works necessitating the felling of trees, removal or disturbance of vegetation or soils by heavy plant, materials storage / stockpiling etc.  |
|              | Habitat degradation                             | Pollution by fuels, lubricants, hydraulic fluid, cements or silts resulting in toxic effects to plants.<br>Damage to soils or vegetation by physical damage, soil compaction (resulting in changes in flora).  |
|              | Habitat fragmentation                           | Temporary or permanent reduction in habitat connectivity through severance of habitat corridors or isolation of patches of habitats, e.g. by severance/removal/felling of woodland, installation of features or land-use that presents a barrier or hostile environment (such as a roads, urban areas, bridges or culverts). |
|              | Killing, injury or disturbance, animals / birds | Digging, vegetation/tree removal, movement of vehicles/heavy plant, and entrapment of animals in trenches, pits or pipes.  |
|              | Displacement of animals / birds                 | Visual, noise or vibration-related disturbance from vehicles/heavy plant, lighting, digging or piling. Habitat loss and degradation (see above) may also displace resident animals.  |
| Operational  | Habitat loss                                    | No further habitat loss will take place during the operational phase.  |
|              | Habitat degradation                             | Increased recreational pressure (additional foot-fall, vehicles, noise and lighting).  |
|              | Habitat fragmentation                           | Reduction in habitat connectivity through road traffic, permanent changes of land use and permanent structures or barriers.  |
|              | Killing, injury or disturbance animals          | Additional traffic, new roads, new lighting and paths.   |
|              | Reduction in animal populations                 | Permanent loss of habitat.   |
|              | Displacement of animals                         | Visual (through increased lighting), noise or vibration-related disturbance. Habitat loss and degradation (see above) may also displace resident animals.  |

**Potential Significant Effects on Site**

- 6.2 Table 7 describes the potential significant effects in the absence of mitigation resulting during the construction and operational phases of the proposed development, for each of the important ecological features identified in Table 5. The likely impacts are presented and characterised, where appropriate, in terms of their extent, magnitude, duration, frequency, timing and reversibility.

Table 7: Potential effects resulting from construction and operational phases, considered for each of the Important Features

| Feature                      | Potential effect                   | Relevant development activity  | Details of ecological effect   | Effect            | Scale and severity                         | Significance               |
|------------------------------|------------------------------------|--|--|-------------------|--|----------------------------|
| Semi-improved grassland      | Habitat loss                       | Site clearance during construction.                                    | <p>The semi-improved neutral grassland on the Rochester airfield as a whole forms a significant area of this habitat in the local area and the development will result in the loss of just over a third of this habitat associated with the airfield. .</p> <p>The proposed development will involve the direct loss of the majority of semi-improved grassland habitat within the Site, approximately 10 ha, which is considered a significant impact at the Local level.</p> | Permanent adverse | Local (local authority-wide area) / medium | Significant at Local level |
| Lowland broadleaved woodland | Habitat loss                       | Site clearance during construction for access.                         | The proposed development will result in the direct loss of approximately 1000 m <sup>2</sup> of this woodland, equivalent to approximately 20% of the total area of this habitat on site. This will result in fragmentation of the habitat.  | Permanent adverse | Site / negligible                          | Significant at Site level  |
|                              | Habitat degradation/ fragmentation | Woodland breaches during construction of new access roads to Parcel 4. |  |                   |  |                            |

| Feature  | Potential effect  | Relevant development activity  | Details of ecological effect   | Effect            | Scale and severity | Significance               |
|----------|---|--|--|-------------------|--------------------|----------------------------|
| Bats     | Reduction in population of European protected species through reduction foraging area and fragmentation of habitat. | Site clearance during construction for access.<br><br>Woodland breaches during construction of new access roads to Parcel 4. | Common pipistrelle, <i>Myotis sp</i> , noctule, soprano pipistrelle, Nathusius' pipistrelle, brown long-eared and serotine use Parcel 4 for foraging or commuting.<br><br>Brown-long eared bat, soprano pipistrelle and noctule bat are all SPI.<br><br>The minor loss of woodland in Parcel 4 will marginally reduce foraging habitat available for bats within the Site. The area of woodland to be removed is considered to be small and represents only a small proportion of the total bat foraging and commuting habitat on Site, therefore effects to bats are considered at Site level.<br><br>Trees likely to be lost all have negligible value as roosting sites and as such the effect of the development on potential roosts is considered to be negligible. | Permanent adverse | Site / negligible  | Significant at Site level  |
|          | Disturbance or displacement to foraging and commuting bats.   | Use of lighting during operational phase   | The installation of new lighting on Site, particularly security lighting left on at night has the potential to result in disturbance or displacement of foraging bats from the Site if light is allowed to spill onto the boundaries where bats are most likely to be present. In the absence of mitigation, this may result in an adverse impact on foraging/commuting bats.  | Permanent adverse | Site / negligible  | Significant at Site level  |
| Dormouse | Reduction in population of European protected species through reduction and fragmentation in the area of            | Site clearance during construction for access.<br><br>Woodland breaches during   | Dormouse is present within the woodland around Parcel 4.<br><br>The minor loss of woodland in Parcel 4 will marginally reduce habitat for dormice within the Site. The area of woodland to be removed is considered to be small and represents only a small proportion of the total dormouse habitat on Site and in the local  | Permanent adverse | Local / small      | Significant at Local level |

| Feature        | Potential effect  | Relevant development activity  | Details of ecological effect   | Effect            | Scale and severity   | Significance               |
|----------------|---|--|--|-------------------|--|----------------------------|
|                | habitat.  | construction of new access roads to Parcel 4.                        | area. The woodland will remain connected to woodland off-Site. The marginal loss of woodland habitat may reduce the availability of food and other resources.<br><br>As dormice are a European protected species, and an SPI, this is considered significant at Local level.   |                   |  |                            |
|                | Disturbance or displacement of dormouse   | Use of lighting during operational phase                             | The installation of new lighting on Site, particularly security lighting left on at night has the potential to result in disturbance or displacement of dormice from the Site if light is allowed to spill onto the boundaries where dormice are present. In the absence of mitigation, this may result in an adverse impact to this species.  | Permanent adverse | Local / small including potential breach of wildlife legislation during construction     | Significant at Local level |
| Breeding birds | Change in value of the Site for breeding birds, particularly skylark.           | Clearance of grassland during construction phase                     | Four pairs of ground nesting skylark are present within the semi-improved grassland in Parcel 1. Other nesting birds have been recorded in the scrub and woodland habitats. Given that this habitat will be cleared/partly cleared as part of the proposed development, there is potential for loss of nesting sites.<br><br>Given the small numbers of nests that would be involved, this impact would be significant at the Site level only. | Permanent adverse | Site / negligible including potential breach of wildlife legislation during construction | Significant at Site level  |
|                | Disturbance, damage or destruction of active nests and killing/injury of birds. | Clearance of grassland, scrub and woodland during construction phase | Nesting birds are present within the grassland, scrub and woodland on Site. Removal or part-removal of these habitats during the bird nesting season has potential to result in adverse impacts to birds and their nests.<br><br>Given the relatively small size of the habitats to be cleared and small numbers of nests that would be involved, this impact would be significant at the Site   | Temporary adverse | Site / negligible including potential breach of wildlife legislation during              | Significant at Site level  |

| Feature | Potential effect  | Relevant development activity                                | Details of ecological effect   | Effect            | Scale and severity | Significance              |
|---------|---|--|--|-------------------|--------------------|---------------------------|
|         |   |  | level only.  |                   | construction       |                           |
| Reptile | Reduced population size through habitat loss                        | Vegetation clearance during construction.                    | Common lizard are present in Parcel 1 of the Site in low numbers. In the absence of mitigation, the removal of the area of grassland and scrub in Parcel 1 would result in loss of all likely habitat for common lizard on the Site.<br><br>Given the relatively small size of the population of reptile on Site that would be displaced, this impact would be at the Site level only.   | Permanent adverse | Site / negligible  | Significant at Site level |
|         | Reduced population of reptiles by killing and injury of individuals | Movement of vehicles and machinery during construction phase | As reptile are present within the grassland and scrub in Area, which is to be cleared, there is potential for killing or injury of individuals through tracking of machinery, vehicles or trampling during vegetation clearance.<br><br>Because of the low numbers likely to be involved, the impact would result in an effect at the Site level only. Impacts would occur only during the construction phase, and hence would be temporary. | Temporary adverse | Site / negligible  | Significant at Site level |

### Summary of significance of effects (before mitigation)

- 6.3 Table 8 provides a summary of the highest level of potential ecological effects likely to result from the proposed development considered alone and in the absence of mitigation. Additional mitigation which will address some of the adverse effects is described in the following section. In the absence of mitigation, significant ecological effects of the proposed development are anticipated at the Site to Local scale.

Table 8: Summary of ecological effects.

| Feature                      | Effects from construction and operational phases  |                                   |            |  |
|------------------------------|---|-----------------------------------|------------|--|
|                              | Effect type   | Geographic scale                  | Severity   | Significance   |
| Semi-improved grassland      | Permanent adverse   | Local (local authority-wide area) | Medium     | Significant at Local (local authority-wide area) level |
| Lowland broadleaved woodland | Permanent adverse   | Site                              | Negligible | Significant at Site level                              |
| Bats                         | Permanent adverse   | Site                              | Negligible | Significant at Site level                              |
| Dormouse                     | Permanent adverse<br>Also potential breach of wildlife legislation during construction. | Local                             | Small      | Significant at Local level                             |
| Breeding bird                | Permanent adverse<br>Also potential breach of wildlife legislation during construction. | Site                              | Negligible | Significant at Site level                              |
| Reptile                      | Permanent adverse<br>Also potential breach of wildlife legislation during construction. | Site                              | Negligible | Significant at Site level                              |

### In-combination Effects

#### *Cumulative effects*

- 6.4 This section considers those effects that may arise cumulatively from the development proposed in combination with other plans and projects proposed/consented but not yet built and operational (i.e. those developments that are separate from the baseline).
- 6.5 Table 9 lists and evaluates potential cumulative effects arising from the proposed development proceeding in combination with other proposed developments. No significant adverse effects have been identified. The only effects identified are Site level adverse effects resulting from the proposed lighting of the new paved runway on the airport site.



Table 9: Cumulative impacts and effects assessment.

| Site   | Nature of Effect  | Significance |
|--|---|--------------|
| <p>Erection of two hangars, erection of new hangar for Medway Aircraft Preservation Society, erection of fencing and gates, formation of associated car parking areas, fuel tank enclosure, ancillary works and a memorial garden (detailed submission) .</p> <p>Rochester Airport</p> <p>Ref. No: MC/14/2914.</p> | <p>This proposed development is planned to be located within the existing building complex on the airport site upon areas of hard standing and amenity grassland only. Therefore is likely to result in no net loss of semi-natural habitats.</p> <p>No in-combination effects are therefore anticipated.</p> | Neutral      |
| <p>Application for a Lawful Development Certificate (proposed) to extend the existing helipad and remove existing hanger doors and replace with wider doors</p> <p>Rochester Airport</p> <p>Ref. No: MC/17/4013.</p>   | As above.   | Neutral      |
| <p>Construction of office building with associated parking for use by Kent, Surrey &amp; Sussex Air Ambulance Trust</p> <p>Rochester Airport</p> <p>Ref. No: MC/17/0931.</p>   | As above.   | Neutral      |
| <p>A Lawful Development Certificate (Existing) for the construction and existing use of two helipads and a hangar for aviation purposes</p> <p>Rochester Airport</p> <p>Ref. No: MC/17/2323.</p>   | As above.   | Neutral      |
| <p>Details pursuant to conditions 3, 4, 5, 7, 8, 9, 10, 12, 13, 14, 16, 17, 18 on planning permission MC/17/0931 for construction of office building with associated parking for use by Kent, Surrey &amp; Sussex Air Ambulance Trust</p> <p>Rochester Airport</p> <p>Ref. No: MC/17/3252.</p>                     | As above.   | Neutral      |

## 7 Mitigation, Compensation and Enhancement

- 7.1 The impact assessment described in the previous section has identified impacts that could lead to potentially significant effects and the Site and Local scale. Appropriate mitigation, compensation and enhancement in relation to these are outlined in Table 10.

Table 10: Recommended Mitigation, Compensation and Enhancement.

| Feature                      | Environmental Measures Proposed   | Reason and Means of Securing Delivery   |
|------------------------------|---|---|
| Semi-improved grassland      | Compensation: An area of species-rich grassland should be created off-Site in the local area. This is to ensure the development does not result in a net loss of biodiversity. This will be guided by a net loss calculation.   | NPPF developments to not result in a net loss of biodiversity and provide a net gain.   |
| Lowland broadleaved woodland | Compensation: New tree planting will be required on Site to incorporate locally native species, to be planted around Parcels 3 and 4, in line with Policy EN9: Trees, Woodland and Hedgerows  | Compensation of lost HPI.<br>Production of an Ecological Management and Enhancement Plan (EMEP), with tree planting specifications.   |
| Bats                         | Mitigation required during operational phase: Appropriate lighting scheme to be implemented around Site/woodland boundaries of Parcel 4. The lighting will be low level or will use hoods or cowls to prevent light spill onto the woodland.  | Design and implementation of lighting scheme for Parcel 4, to be specified in the EMEP.   |
| Dormouse                     | Mitigation during construction phase: The removal of trees/woodland should be carried out in two phases, i.e. above ground vegetation removed in winter and below ground roots removed in summer. This will avoid disturbance to dormice at their most sensitive times.<br><br>Mitigation required during operational phase: Appropriate lighting scheme to be implemented around Site/woodland boundaries of Parcel 4. The lighting will be low level or will use hoods or cowls to prevent light spill onto the woodland. | Production of an EMEP, with woodland/tree clearance specifications.<br><br>Design and implementation of lighting scheme for Parcel 4. |
| Breeding bird                | Mitigation required during construction phase. To avoid contravention of legislation that protects nesting birds, clearance of the grassland and removal of trees and scrub during the nesting bird season will be avoided (i.e. for most species the nesting period  | Production of an EMEP, with grassland, woodland/tree and scrub clearance specifications on timing.                                    |

| Feature | Environmental Measures Proposed  | Reason and Means of Securing Delivery                                     |
|---------|--|---|
|         | generally lasts between March to August so work involving vegetation removal is usually best completed between September and February). In the event that removal of this vegetation is necessary at a time when birds may be nesting, a suitably experienced ecologist would need to survey the habitat prior to clearance and appropriate action then taken as required. |   |
| Reptile | Mitigation required during construction phase: To avoid the potential for killing or injury of reptiles, the grassland and scrub should be cut through phased clearance and maintained as a short sward throughout construction to prevent reptiles from returning to the habitat.   | Production of an EMEP, with grassland and scrub clearance specifications. |

### Monitoring

7.2 Monitoring is recommended as follows to ensure that effective mitigation is maintained:

- ) Monitoring of adherence to EMEP during construction and operation, for example quarterly checks by an independent ecological professional, based on a checklist that forms part of the EMEP. Some stages of the EMEP will also require supervision by the ecologist.

## 8 Conclusions

- 8.1 Based on the nature and location of the proposed development, no adverse effects on statutory or non-statutory designated sites are anticipated. Without mitigation, there will be adverse effects resulting from the loss of the semi-improved grassland in Parcel 1. Without mitigation there is also a risk of breach of wildlife legislation in relation to dormouse, reptiles and nesting birds. Adverse impacts may also occur to foraging bats and commuting. Not all surveys are yet complete and roosting assessments of trees have not yet been undertaken and so the potential for impacts to roosting bats is currently unknown.
- 8.2 Recommended compensation includes: (1) compensation of lost grassland, (2) compensation of lost woodland. Recommended mitigation includes: (3) measures to prevent impacts to foraging bats, (4) measures to prevent impacts to dormice, (5) measures to prevent impacts to nesting birds, and (6) measures to prevent impacts to reptiles. It is recommended that the above mitigation is detailed in an Environmental Management and Enhancement (EMEP) Plan for the development, to be subject to a planning condition.
- 8.3 Overall, the proposed development, considered in the context of other proposed development, would achieve a net gain in biodiversity, in line with the NPPF. Although semi-improved neutral grassland will be lost on Site, this will be compensated for off-Site. The mitigation in regard to measures to protect protected species on Site is to be secured and will allow the development to proceed in compliance with wildlife legislation.

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## **10 Appendices**

## **Appendix 1 Rochester Airport Innovation Park Medway, Ecological Baseline Report**

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## 1 Summary

- 1.1 BSG Ecology was commissioned to undertake an ecological appraisal of land at Rochester Airport (referred to as the Site), situated in Chatham to the south of the city of Rochester. This document reports the current ecological baseline of the Site.
- 1.2 There are a number of statutory and non-statutory designated sites within 10 km of the Site, however none lie within the Site itself. The Site is comprised of four key Parcels of the existing airport and council land; including Parcels 1, 2, 3 and 4.
- 1.3 Parcel 1 comprises semi-improved grassland, scrub and an existing mown runway. Parcel 2 comprises a disused hardstanding car park with low growing vegetation. Parcel 3 contains hardstanding with ruderal vegetation. Parcel 4 is a caravan storage park, with amenity grassland and broadleaved woodland around the boundaries. The woodland is considered to be a Habitat of principal Importance (HPI).
- 1.4 Through the desk study data search, review of previous ecological studies on site and current surveys undertaken in 2018 by BSG Ecology, the following species/species groups have been identified as present on Site or have potential to be present on Site.
  - ) Bats – The woodland around Parcel 4 supports foraging and commuting bats; seven species have previously been recorded here. However current surveys suggest that small numbers of common species use this area. The final autumn static detector survey was still ongoing at the time of writing. Four trees within Parcel 4 have been identified as having potential to support roosting bats, three of which are of low suitability, one of moderate suitability.
  - ) Dormice – Previous surveys have confirmed presence of dormice within the woodland around Parcel 4.
  - ) Breeding bird – The grassland in Parcel 1 supports four skylark plots and a small number of other species. The majority of bird activity is located in the woodland around Parcel 4, with many common species nesting here.
  - ) Reptile – Previous surveys have confirmed the presence of common lizard in Parcel 1, however none have been found during current. It is considered likely common lizard exist on Site in small numbers.
  - ) Badger – No badger setts have been found on Site and no evidence of badger foraging has been identified. However given the presence of this species in the local area, it is possible that badger pass through the Site infrequently.

## 2 Introduction

### Background to commission

- 2.1 BSG Ecology was commissioned to undertake an ecological appraisal of land at Rochester Airport (referred to as the Site), situated in Chatham to the south of the city of Rochester, central Ordnance Survey National Grid Reference (OSNGR) TQ 74293 64714. This report provides a baseline of ecological features currently on Site based on desk study and Site surveys undertaken to date.

### Site Description

- 2.2 The Site is located in Chatham, just south of Rochester on the existing Rochester airport site. The Site comprises four distinct Parcels of the airport; Parcels 1, 2, 3 and 4 as shown in Figures 1a and 1b. Parcel 1 is an existing runway and Parcel 2 is located within commercial land and comprises a disused car park. Parcels 1 and 2 together (the northern section) cover approximately 13.5 ha. The grassland runway to be retained lies immediately east and south of Parcels 1 and 2, with residential housing to the west.
- 2.3 Parcels 3 and 4 lie to the south-east and south of the airport, respectively, and are both owned by Medway Council. Parcel 3 is currently disused land and Parcel 4 is in use as a caravan storage park, surrounded by a woodland belt. The caravan park comprises a number of stored caravans along with a main house and several small outbuildings. Together Parcels 3 and 4 (the southern section) cover approximately 2.3 ha. Residential housing lies to the south and the airport to the north. Main roads, including the Maidstone Road and M2 lie beyond the Site to the east and west, respectively.
- 2.4 The Site boundaries are shown in Figures 1a and 1b and photographs of the Site are shown in Section 7.

### Proposed Works

- 2.5 The proposed works will involve the development of Parcels 1, 2, 3 and 4 as per the Masterplan. The development will include new buildings, roadways, car parks, landscaping and amenity areas. Access to the northern section will be from Laker Road and access to the southern section via the existing airport access gate off Maidstone Road.

### Aim of Study

- 2.6 This report provides details of the ecological desk study, extended Phase 1 habitat survey and a suite of protected species surveys undertaken on Site and within the surrounding habitat during the period May to October 2018, including bats, breeding birds, reptiles and badger *Meles meles*. A grassland survey was also undertaken.
- 2.7 The ecological appraisal of the Site aims to identify important ecological features and provide a basis for assessment of impacts on ecological assets arising from the proposed development. This report provides a description of recommended measures proposed to avoid, mitigate and compensate any adverse effects identified arising from the construction of the new Innovation Park Medway. It includes recommendations for ecological enhancements, and outlines measures to be implemented to avoid legal infringements.

### 3 Methodology

- 3.1 This section provides details of the methods that have been used for the desk study and ecological surveys on the Site.

#### Desk Study

- 3.2 A desk study was completed to gain information on designated sites of nature conservation interest within a 10 km radius from the centre OSNGR of the Site (TQ 74293 64714) in line with the CIEEM ecological impact assessment guidance (CIEEM, 2016).
- 3.3 Records of protected species and species of conservation concern e.g. Species of Principal Importance (SPI's) for the conservation of biodiversity in England listed in accordance with Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, were collated within 2 km of the Site. This information was provided by Kent and Medway Biological Records Centre (KMBRC) in April 2018.
- 3.4 The desk study made use of publically available internet mapping and aerial photography resources to assess the context of the Site including:
- ) The Multi-Agency Geographic Information for the Countryside (MAGIC) database (<http://www.magic.gov.uk/>) to identify protected sites, ponds within 250 m of the Site (to assist in determining the possibility of the presence of great crested newt *Triturus cristatus* (GCN) and any granted European Protected Species Licence applications within 2 km of the Site
  - ) Bing maps
  - ) Google maps

These resources were utilised throughout the course of the work.

#### Phase 1 Habitat Survey

- 3.5 A Phase 1 habitat survey of the Site was carried out by Hannah Bilston and Alison Hood on 21 March 2018. The survey involved walking the Site (primarily along Site boundaries due to health and safety reasons), and identifying and mapping the habitats present using the habitat categories and guidance described in *Handbook for Phase 1 Habitat Survey* (JNCC, 2010). The Phase 1 also encompassed land immediately adjacent to the Site, referred to as the 'Study Area' in order to ensure hedgerows and scrub outside of the Site were included within the assessment, as these habitats are likely to be used by protected or notable species. The Survey Area is shown on Figure 1.
- 3.6 Weather conditions during the survey were: 10<sup>0</sup>c, light breeze, cloudy, no rain; these conditions did not constrain the survey.
- 3.7 The habitat descriptions of the Biodiversity Reporting and Information Group (BRIG, 2011) were used to identify any Habitats of Principal Importance (HPI) in England.

#### Botanical survey

- 3.8 A survey of the grassland in Parcel 1 was carried out in accordance with the National Vegetation Classification (NVC). This survey identifies the vegetation type. The NVC survey was carried out on 9 July 2018 by Jon Huckle, an experienced botanist.
- 3.9 The grassland in Parcel 1 was surveyed using the methodology developed for the National Vegetation Classification, and involved recording the presence and abundance of higher plant

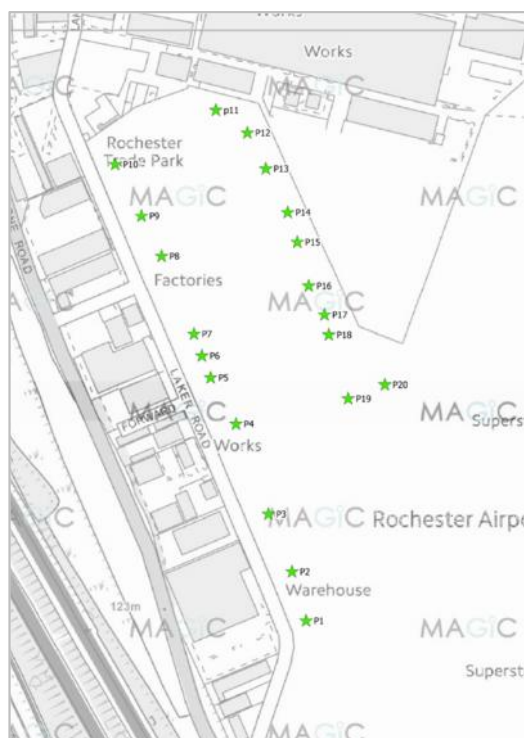
species within a series of 2m x 2m quadrats or plots located within stands of homogenous vegetation.

- 3.10 Prior to the commencement of the survey, it was decided that the grassland located on either side of the runway was more or less homogenous in character and appearance, comprising unmown and ungrazed grassland. The grassland was scheduled to be cut for hay/silage shortly after the survey had been completed.
- 3.11 Survey plots were selected in a stratified randomised manner, with ten quadrats located on either side of the runway and approximately evenly distributed on each side. The exact location of each quadrat was selected at random to avoid sampling bias. The location of the 20 survey plots is presented on Plate 1 below.
- 3.12 For each 2m x 2m quadrat, the species present were identified, and the abundance of each species recorded using the Domin scale, an established method for recording the abundance of each plant taxon. On the Domin scale, the percentage cover of plant species is recorded as shown in Table 1.

3.13 Table 1: Percentage cover equivalents of plants on the Domin scale

| Domin Scale | % cover                   |
|-------------|---------------------------|
| 1           | <4% - Few individuals     |
| 2           | <4% - Several individuals |
| 3           | <4% - Many individuals    |
| 4           | 4-10%                     |
| 5           | 11-25%                    |
| 6           | 26-33%                    |
| 7           | 34-50%                    |
| 8           | 51-75%                    |
| 9           | 76-90%                    |
| 10          | 90-100%                   |

Plate 1: Location of Survey Quadrats (Plots 1-20) used to sample grassland vegetation



### **Survey Limitations**

- 3.14 The survey was undertaken in clear, sunny conditions and there were no limitations regarding the conditions of the survey. Due to operational activity within the airfield, no access was permitted within 30m of the runway itself. While this restricted the areas that could be sampled, there did not appear to be any apparent differences in the unmown grassland immediately adjacent to the runway and that at a distance within the survey area and this is not considered to be significant limitation to the survey. The runway and taxi strips comprised closely mown grassland, and these grassland areas were not accessible for survey.
- 3.15 The survey was carried out after a period of dry, hot weather which resulted in the vegetation being very dry, with many of the herbaceous species in particular being dead, senescent or shrivelled. It is possible that this may have led to some herbaceous species being underrepresented, however, this is not considered to significantly alter the results of the survey or result in the plant communities being misidentified.

### **Protected Species Surveys**

- 3.16 The Phase 1 habitat survey identified the potential of the habitats to support species subject to protection under European and UK wildlife law. The section below outlines methods that have been employed for protected species surveys undertaken.

### **Bats**

#### **Static monitoring**

- 3.17 Two automated bat detectors were deployed on Site, one in Parcel 1 and one in Parcel 4. The detectors will be deployed on three occasions over the bat active season, in May, July and September 2018. The May and July sessions have been completed at the time of writing. During the deployment sessions in May and July the detectors were operated for a period of five consecutive nights. The automated detector surveys were conducted using two Anabat Express detectors which are full spectrum bat detectors that are triggered automatically to record bat echolocation calls.
- 3.18 The detectors were programmed to begin recording from half an hour before sunset until half an hour after sunrise, which allowed continuous monitoring to take place during the period when bats are active, i.e. sunset to sunrise.

#### **Activity surveys**

- 3.19 Three dusk walked activity transects were undertaken between June and September 2018 completed on 27 June 2018, 17 July 2018 and 10 September 2018. The aim of the surveys is to identify the assemblage and interpret the behaviour and distribution of bats within the fields. The surveys start at sunset and continue until two hours after sunset taking into account standard industry guidance (Collins, 2016).
- 3.20 The direction of each transect route has been altered between the two transects completed in June and July to ensure that different parts of the transects are surveyed at different times of the night. This approach removes any bias that could be introduced into the survey data if the transect is always walked in the same direction.
- 3.21 Equipment used includes an Anabat Express, which allows recording of bat calls for later analysis, Duet and Echometer. Field notes include a record of the time of each bat encounter, allowing results to be cross-referenced with the recorded data.
- 3.22 All surveys have been undertaken during optimal weather conditions, avoiding heavy rain, strong winds and temperatures below 10°C, thus taking into account standard industry guidance (Collins, 2016). Table 2 lists the survey dates, key personnel and a summary of weather conditions.

Table 2: Dates, times and weather conditions recorded during the bat activity transect surveys.

| Date     | Surveyors                    | Survey times (and sunset time) | Weather Conditions  |
|----------|------------------------------|--------------------------------|---|
| 27/06/18 | Alison Hood and Claire Wiggs | 21.07 - 23.00 (21.17)          | Cloud 1/8, Wind Bf 5-6, no rain, and temperature: at start: 15 <sup>0</sup> c, at end: 14 <sup>0</sup> c. |
| 17/07/18 | Alison Hood and Claire Wiggs | 21.00 – 23.00 (21.06)          | Cloud 0/8, Wind Bf 2, no rain and temperature at start: 19 <sup>0</sup> c, at end: 15 <sup>0</sup> c      |
| 10/09/18 | Alison Hood and Claire Wiggs | 19.11 – 20.56 (19.26)          | Cloud 1/8, Wind Bf 4, no rain and temperature at start: 18 <sup>0</sup> c, at end: 15 <sup>0</sup> c      |

### Bat Data Analysis

- 3.23 The recorded raw data files (WAV files) were converted to zero-crossing ZC files (where necessary) using the Kaleidoscope software programme. The converted files were then analysed using Titley Scientific Analook software.
- 3.24 For the purpose of the analysis a bat pass is defined as a single, uninterrupted sequence of echolocation calls lasting a maximum of 15 seconds. The species analysis is based on the call parameters described in Russ (2012). Given that the Site is outside the current known range of grey long-eared bat *Plecotus austriacus*, each long-eared bat is assumed to be brown long-eared bat *Plecotus auritus* (Harris & Yalden, 2008).
- 3.25 The following criteria were used to classify pipistrelle bat calls based on measurements of peak frequency:
- ) Common pipistrelle *Pipistrellus pipistrellus* ( 42 and <49 kHz);
  - ) Soprano pipistrelle *Pipistrellus pygmaeus* >51 kHz;
  - ) Common or soprano pipistrelle > 49 kHz and < 51 kHz; and
  - ) Nathusius' pipistrelle *Pipistrellus nathusii* <39 kHz.
- 3.26 In addition, the following categories are used for calls which cannot be identified with confidence due to the overlap in call characteristics between these species or species groups:
- ) *Myotis* sp. (to include six possible species: Daubenton's bat *M. daubentonii*, Natterer's bat *M. nattereri*, whiskered *M. mystacinus*, Brandt's bat *M. brandtii*, alcahloe bat *M. alcahloe*, and/or Bechstein's bat *M. bechsteinii*);
  - ) *Myotis* / *Plecotus* sp. (*Myotis* or long-eared bat).;
  - ) *Nyctalus* sp. (either Leisler's bat *Nyctalus leisleri* or noctule *Nyctalus noctula*); and
  - ) Serotine *Eptesicus serotinus* / Leisler's bat.
- 3.27 Bat calls which could not be ascribed to any of these categories were not used in the subsequent analysis.

### Ground level tree assessment

- 3.28 A ground level tree assessment (GLTA) of Parcel 4 was carried out on the 10 September 2018 by Alison Hood. The assessment involved a thorough search of the trees from ground level using a high-powered torch and binoculars to search for potential roosting features (PRF) or indicative evidence of bat roosting. Based on the characteristics of the PRF on trees, the tree structure and its location, each tree was classified as being of high, moderate, low or negligible suitability for bat roosting as per best practice guidance as shown in Table 3.

Table 3. Roost suitability of PRF on trees\*

| Suitability | Description of roosting habitat   |
|-------------|---|
| Negligible  | Negligible habitat features on site likely to be used by roosting bats.   |
| Low         | A tree of sufficient size and age to contain PRFs but with none seen from the ground, or features seen with only very limited roosting potential.   |
| Moderate    | A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions, and surrounding habitat but unlikely to support a roost of high conservation status.                                |
| High        | A structure or tree with one or more roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat. |

\*Source: Bat Conservation Trust, 2016, Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition).

### Limitations

- 3.29 The surveys were undertaken in suitable conditions and there were no limitations regarding the conditions of the survey. There were also no limitations regarding access.

### Breeding bird characterisation survey

- 3.30 A walkover bird survey aimed at characterising the breeding bird community associated with the Site was completed by experienced ornithologists.
- 3.31 Three survey visits were carried out; the first by Jon Huckle and the second and third by Stuart Elsom, in April, May and June 2018. The dates, times and weather conditions are detailed in Table 4.

Table 4: Bird Survey Dates and Weather Conditions

| Visit No. | Date     | Duration      | Weather conditions at start                           | Weather conditions at finish                           |
|-----------|----------|---------------|---|--|
| 1         | 25/04/18 | 07.00 – 10.00 | Temp: 12°C. Cloud cover: 2/8. Wind: Bf 2. Rain: 0mm   | Temp: 14°C. Cloud cover 2/8. Wind: Bf 2-4 W. Rain: 0mm |
| 2         | 23/05/18 | 07.00-10.00   | Temp: 11°C. Cloud cover: 3/8. Wind: Bf 2. Rain: 0mm.  | Temp: 14°C, cloud 3/8. Wind: Bf 3. Rain: 0mm.          |
| 3         | 22/06/18 | 07.00-10.00   | Temp: 16°C. Cloud cover: 2/8. Wind: Bf 2 E. Rain: 0mm | Temp: 20°C. Cloud cover: 1/8. Wind: Bf 2 E. Rain: 0mm. |

- 3.32 During each visit, open habitat areas within the Site were walked at a slow pace to enable all birds detected to be located, identified and recorded. All areas of suitable breeding habitat within the Site and immediately adjacent areas were approached to within 50 m, with particular attention paid to areas of hedgerows and woodland edge. Regular stops were made to observe and listen for territorial activity within grassland, woodland or scrub plots.
- 3.33 The location of each bird detected (visually and/or aurally) was recorded and mapped on field sheets using standard two-letter British Trust for Ornithology (BTO) species codes and the observed activity was recorded with standard activity symbols.
- 3.34 The resulting maps were collated and the information interpreted to characterise the breeding bird community present.



### Limitations

- 3.35 Limitations arose through constraints to available times of access to the Site. No access to the Site could be achieved before 07.00am; thus limiting the breeding bird species that may have been recorded if an earlier survey start time was achievable.

### Badger

- 3.36 The Site was surveyed for badger by Alison Hood on 13 June 2018 in accordance with standard methodology (Harris *et al.*, 1989). Conditions during the survey were optimal, being warm (c.21°C), dry and overcast with occasional sun.
- 3.37 During the survey, dedicated searches were made for signs of badger activity such as sett holes, footprints, latrines, dung pits, hairs and mammal paths with evidence of use by badgers. Suitable habitats within the Survey Area and up to a distance of 30 m beyond were assessed, where this was practical and possible.

### Limitations

- 3.38 Access was restricted in parts of the woodland around Parcel 4. These access restrictions are not considered to have significantly constrained the assessment as over 90% of the Site was accessible.

### Reptiles

- 3.39 In order to determine whether reptiles are present on Site (and if so, which species), a presence/absence survey for reptiles was undertaken from May – September 2018 adopting principles of industry standard guidance (Froglife, 1999). This survey is still ongoing at the time of writing.
- 3.40 A total of 70 artificial refuges (comprising sheets of roofing felt combining, 50 cm x 50 cm and 100 cm x 50 cm) were placed within suitable habitat within the Site, particularly focussed around the Site boundaries. Approximately 2 km of linear habitat was surveyed using refugia placed at a density of every 10 m. However this density was increased in places to maximise likelihood of finding reptiles.
- 3.41 Table 5 lists the survey dates, key personnel and a summary of weather conditions during the reptile surveys. Surveys were undertaken in the morning taking into account the current industry guidance.

Table 5: Dates and weather conditions recorded during the reptile surveys.

| Visit Number | Surveyor <sup>1</sup> | Date     | Rain  |      | Cloud <sup>2</sup> | Temp °C           | Wind <sup>3</sup> |
|--------------|-----------------------|----------|-------|------|--------------------|-------------------|-------------------|
|              |                       |          | Start | End  |                    |                   |                   |
| 1            | SE                    | 24/04/18 | None  | None | 2                  | 14 <sup>0</sup> c | 3                 |
| 2            | SE                    | 23/05/18 | None  | None | 4                  | 13 <sup>0</sup> c | 2                 |
| 3            | SE                    | 29/05/18 | None  | None | 1                  | 16 <sup>0</sup> c | 2                 |
| 4            | AH, CW                | 13/06/18 | None  | None | 2                  | 16 <sup>0</sup> c | 1                 |

<sup>1</sup> SE – Stuart Elsom MCIEEM, AH – Alison Hood ACIEEM, CW – Claire Wiggs, JH – Jon Huckle MCIEEM

<sup>2</sup> Cloud cover is measured using the system called oktas. The visible sky is divided into eight and cloud presence is determined within each section. A value of one to eight is then assigned (1 okta being cloudless to 8 oktas being total cloud cover).

<sup>3</sup> The Beaufort scale is an empirical measure for describing wind intensity on a scale of 0 to 12. 0- Calm, 1- Light air, 2- Light breeze, 3- Gentle breeze, 4- Moderate breeze, 5- Fresh breeze, 6- Strong breeze, 7- Moderate gale, 8- Fresh gale, 9- Strong gale, 10- Whole gale, 11- Storm, 12- Hurricane force.



| Visit Number | Surveyor <sup>1</sup> | Date     | Rain  |      | Cloud <sup>2</sup> | Temp °C           | Wind <sup>3</sup> |
|--------------|-----------------------|----------|-------|------|--------------------|-------------------|-------------------|
|              |                       |          | Start | End  |                    |                   |                   |
| 5            | JH                    | 9/07/18  | None  | None | 0                  | 17 <sup>0</sup> c | 1                 |
| 6            | AH                    | 04/09/18 | None  | None | 3                  | 16 <sup>0</sup> c | 2                 |
| 7            | AH                    | 10/08/18 | None  | None | 2                  | 17 <sup>0</sup> c | 3                 |

- 3.42 All reptile surveys were carried out by suitably qualified ecologists with experience of undertaking reptile surveys and/or translocations and ground clearance works involving common species of reptiles.

#### Evaluation of ecological features

- 3.43 The assessment methods for Sections 4 and 5 are based on the *Guidelines for Ecological Impact Assessment* developed by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2016). In order to evaluate the importance of ecological features identified in the desk study and field surveys, a set of standard measures are outlined (CIEEM, 2016). For the site, habitat and species/assemblage, a summary grade is determined using the levels of value recommended in the guidance. This places the importance of each feature in a geographical context, using the following hierarchy:
- International
  - UK
  - National (England)
  - Regional (South east)
  - County (Kent)
  - District (Rochester)
  - Local, e.g. Parish (Chatham)
  - Site, e.g. The immediate zone of influence of the Site
- 3.44 Where appropriate, species specific criteria are used to assist in assigning geographic level. This includes reference to National Guidelines for Biological Selection of SSSIs (JNCC, 1989) and Berkshire, Buckinghamshire and Oxfordshire criteria for the selection of Local Wildlife Sites (LWSs; TVERV and BMERC, 2009). The status of a species locally and nationally, including any legislative and policy protection (such as for example Priority Species and Priority Habitats as referred to in the National Planning Policy Framework, and as listed under the requirements of the Natural Environment and Rural Communities Act (NERC) 2006 as Species and Habitats of Principal Importance for the conservation of biodiversity - see Appendix 1) has also been taken into account. The definitions for Priority Habitats from Maddock (2011) have therefore been used to inform the assessment of habitats.

## 4 Results and Interpretation

- 4.1 In this section the results of fieldwork and desk study are brought together. The importance of the different ecological features is considered with regard to guidance, planning policy and relevant legislation, which is outlined in Appendix 1.

### Designated Wildlife Sites

- 4.2 The proximity and interest features of statutory and non-statutory designated sites within 10 km of the Site are shown in Table 6.

Table 6: Designated Wildlife Sites.

| Site   | Details   | Distance and direction from site |
|--|---|----------------------------------|
| <i>Statutory designated sites within 10 km</i> |   |                                  |
| Wouldham To Detling Escarpment SSSI            | Chalk escarpment includes representative examples of woodland, scrub and unimproved grassland habitats on chalk, which support a number of rare and scarce species of plants and invertebrates. | 1.7 km west                      |
| Peters Pit SAC                                 | Old chalk quarry, large ponds, grassland, scrub and woodland, large population of Great crested newt <i>Triturus cristatus</i> .  | 2.5 km west                      |
| North downs SAC                                | Beech woodland, steep slopes, grassland and scrub mosaic habitats.  | 3.5 km south-west                |
| Medway Estuary & Marshes SPA & RAMSAR Site     | Estuary, tidal channels, mud flats, grazing marshes, summer breeding birds and overwintering, importance during spring/autumn migration for waders.   | 5.9 km north-east                |
| Thames Estuary and marshes SPA & RAMSAR        | Marshes, intertidal areas and mudflats, flooded chalk and clay pits, saltmarsh, wintering waterbirds and migrating birds.   | 9.8 km north                     |
| Queendown Warren SAC                           | Grassland, rare and scarce species, orchids.  | 7.5 km east                      |
| <i>Non-statutory sites within 2km</i>          |   |                                  |
| ME06 Luton Banks Chatham LWS                   | (no data provided)  | 1 km east                        |
| TM09 Bridge Woods Burham LWS                   | (no data provided)  | 0.3km west                       |

### Habitats and Plants

- 4.3 Habitats present within the Site are described in Table 7. A Phase 1 habitat map is provided in Figures 1a and 1b.

Table 7: Habitats present on Site.

| Habitat                 | Interest/Preliminary Evaluation  | Description   |
|-------------------------|--|---|
| Semi-improved grassland | Local importance.<br><br>(The grassland on Site is part of a large area of the same habitat that | The grassland covers the majority of Parcel 1 on the Site. It is managed with a single cut in late summer, with the exception of the runway and a 3m boundary strip which is maintained as a short sward. |

| Habitat           | Interest/Preliminary Evaluation  | Description   |
|-------------------|--|---|
|                   | covers the majority of the airport site, approximately 35 ha in total.   | The NVC survey of the grassland show greatest affinity with the MG1e <i>Arrhenatherum elatius</i> grassland, <i>Centaurea nigra</i> sub-community.  |
| Scrub             | Site importance.<br><br>Habitat is not protected and is not listed as a Habitat of Principal Importance. The scrub may however be of interest as a habitat to birds and reptiles.  | An area of scrub lies to the north of Parcel 1 in a 6 m (approx.) wide belt along the northern boundary. The scrub lies upon a steep earth bank, approximately 1 m high, and comprises hawthorn <i>Crataegus monogyna</i> , elder <i>Sambucus nigra</i> , buddleia <i>Buddleia davidii</i> , and bramble <i>Rubus fruticosus</i> .  |
| Woodland          | Site importance.<br><br>Habitat type may conform to the description of the 'lowland mixed deciduous woodland' HPI (Maddock [Ed], 2011); however, given its small size it is only likely to be of ecological importance at the site level. It does however connect to the surrounding hedgerows, thus increasing its value as part of a habitat corridor. | Broadleaved semi-natural woodland lies around the boundary of Parcel 4 to the south. The woodland comprises semi-mature hornbeam and oak, with an understorey of ivy hazel, elder, field maple, <i>Hedera helix</i> , bramble <i>Rubus fruticosus</i> , hawthorn <i>Crataegus monogyna</i> , and dog rose <i>Rosa canina</i> .<br><br>The woodland has a dense understorey of ivy <i>Helix heder</i> , hazel <i>Coryllus avellana</i> , elder, field maple <i>Acer campestre</i> , bramble, hawthorn, and dog rose <i>Rosa canina</i> .   |
| Amenity grassland | Negligible importance.<br><br>Habitat is not protected and is not listed as a Habitat of Principal Importance.   | This habitat type is present across the runway areas of Parcel 1 on site and within Parcel 4 (the caravan park). The grassland in these areas is maintained as a short sward, particularly the runway in Parcel 1 for health and safety reasons. Due to the frequent cutting, an appraisal of botanical species present has not been undertaken.  |
| Ruderal           | Negligible importance.<br><br>Habitat is not protected and is not listed as a Habitat of Principal Importance.   | This habitat type is located within Parcel 3 to the south-east. The disused car park comprises concrete with ruderal vegetation now growing upon it and covering the majority of the area. The botanical species present include, ragwort <i>Senecio jacobaea</i> , buddleia, willowherb <i>Chamerion angustifolium</i> , bramble and nettle <i>Urtica dioica</i> .   |
| Hard standing     | Negligible importance.<br><br>Habitat is not protected and is not listed as a Habitat of Principal Importance.   | Hard standing covers Parcel 2 of the Site to the north. The disused car park comprises concrete. A small amount of low-growing vegetation is present growing through the concrete, including, white clover <i>Trifolium repens</i> , bristly ox-tongue <i>Helminthotheca echioides</i> , yarrow <i>Achillea millefolium</i> , dandelion <i>Taraxacum officinale</i> , ribwort plantain <i>Plantago lanceolata</i> and perennial rye grass <i>Lolium perenne</i> .<br><br>This habitat is not considered to qualify as 'Open Mosaic Habitats on Previously Developed Land' due to the lack of a mosaic-like structure and lack of loose, bare substrate. |

### Species on the Site / Nearby

4.20 The protected and/or notable species that have the potential to be found within the Site or have been confirmed on the Site are detailed in Table 8 below. Further text is provided below the table

with regards to other protected species which are considered unlikely to be present within the Site but have been recorded within the desk study.

Table 8. Protected/notable species recorded in the desk study and/or with potential to be present or confirmed on Site.

| Species        | Desk Study  | Site Survey   |
|----------------|---|---|
| Bats           | <p>Records of the following species were returned through the desk study; serotine <i>Eptesicus serotinus</i>, Daubenton's <i>Myotis daubentonii</i>, whiskered <i>Myotis mystacinus</i>, Natterer's <i>Myotis nattereri</i>, Leisler's <i>Nyctalus leisleri</i>, noctule <i>Nyctalus noctula</i>, Nathusius'pipistrelle <i>Pipistrellus nathusii</i>, common pipistrelle <i>Pipistrellus pipistrellus</i>, soprano pipistrelle <i>Pipistrellus pygmaeus</i>, brown long-eared <i>Plecotus auritus</i>.</p> <p>Previous survey work recorded at least seven species of bat in and around Parcel 4 over a 14 night recording period (KB Ecology, 2018a).</p> | <p>Four trees within parcel four were found to support bat roosting potential (Figure 4). Three of which were considered to be of low suitability and one of moderate suitability. The PRF in low suitability trees were not found to support roosting bats at this time but have the potential to in the future.</p> <p>The house in Parcel 4 has been scoped out as having negligible suitability for bat roosting; the house is of modern construction, with tightly sealed roof tiles, barge boards and verges thus presenting no potential roosting features (PRF) or access points for bats. Additionally the outbuildings are flat roofed and tightly sealed also with no PRF or access points.</p> <p>The Site is used by foraging and commuting bats, as found by the static monitoring surveys and walked transect surveys. Overall bats have been recorded in relatively low numbers but the majority of activity is located near the woodland habitats around Parcel 4 (Location 2 in Figure 2) where common and soprano pipistrelle and <i>Myotis</i> bats have been recorded. Fewer bat species in lower numbers were recorded in Parcel 1 (Location 1 in Figure 2). Very low numbers or no bats were recorded on the completed transect surveys; the first transect survey recorded no bats and the second and third recorded small numbers of common and soprano pipistrelle around Parcel 4 only. This indicates that the Site is not of great importance for foraging or commuting bats, however it is still used by bats on regular basis.</p> |
| Dormouse       | <p>Records of dormouse <i>Muscardinus avellanarius</i> have been returned by KMBRC from between 1994-2008; the majority are from Burham, Bridge and Wouldham Woods within 1km west of the Site.</p> <p>Dormouse have previously been recorded on Site within the woodland around Parcel 4 to the south (KB Ecology, 2018b).</p>   | <p>The woodland around Parcel 4 is considered likely to still support dormouse as it connects beyond the Site to woodland along Rochester Road, leading north. No other areas/habitats on site are considered likely to support dormouse, the scrub in Parcel 1 for example, as they are not aerially connected to the woodland on Site, which dormouse require to travel.</p>  |
| Breeding birds | <p>KMBRC returned records of 95 species of protected or notable bird recorded within 2km of the Site.</p> <p>This includes 25 red list species 14 amber list species, 13 species recorded at Rochester Airport itself, including; Canada goose <i>Branta canadensis</i>, sparrowhawk <i>Accipiter nisus</i>, kestrel <i>Falco tinnunculus</i>, hobby <i>Falco subbuteo</i>, lapwing <i>Vanellus vanellus</i>, green woodpecker <i>Picus viridis</i>, skylark <i>Alauda Arvensis</i>,</p>  | <p>The grassland on Site is confirmed as supporting breeding skylark; four breeding plots were identified in Parcel 1. Parcel 1 also supports meadow pipit and dunnock <i>Prunella modularis</i>, both amber list species (Figure 3).</p> <p>The woodland around Parcel 4 supports the largest number and variety of bird species, most of which are green list species and are no under conservation threat. This is with the exception of song thrush <i>Turdus philomelos</i> a red list species, dunnock and bull finch <i>Pyrrhula pyrrhula</i> which are amber list.</p>  |

| Species | Desk Study   | Site Survey  |
|---------|--|--|
|         | <p>swallow <i>Hirundo rustica</i>, meadow pipit <i>Anthus pratensis</i>, grey wagtail <i>Motacilla cinerea</i>, pied wagtail <i>Motacilla alba</i>, long-tailed tit <i>Aegithalos caudatus</i> and linnet <i>Linaria cannabina</i>.</p> <p>No bird surveys on the Site have been previously completed.</p>   |  |
| Reptile | <p>KMBRC returned records of four species of reptile within 2km of the Site, including slow worm <i>Anguis fragilis</i>, grass snake <i>Natrix natrix</i>, adder <i>Vipera berus</i> and common lizard <i>Zootoca vivipara</i>. Grass snake and slow worm have historically been recorded at Rochester Airport itself between 1981-1990.</p> <p>During previous surveys in 2017, common lizard were recorded along the scrub bank in Parcel 1 (KB Ecology, 2018c).</p> | <p>The grassland and scrub bank in Parcel 1, the ruderal vegetation and woodland edge in Parcel 3 and the woodland and log piles in Parcel 4 are all considered to offer suitable habitat for reptiles.</p> <p>Thus far, four out of the seven reptile survey have been undertaken, however no reptiles have yet been found. It is presumed however, that as the habitats are still suitable and common lizard have been previously recorded, this species is likely still present but in small numbers.</p> |
| Badger  | <p>KMBRC returned several records of badger <i>Meles meles</i> within 2km of the Site, the most recent record from 2006. None of these records are from the Site itself.</p>   | <p>No badger setts have been located on Site, however it is acknowledged that dense scrub and woodland around Parcel 4 and to the north of Parcel 1 may limit the likelihood of locating setts if present. No obvious signs of badger were recorded during the Site survey, however this species is common and widespread and therefore potentially uses the Site for dispersal or foraging.</p>   |

### **Species recorded in desk study but unlikely to be on site**

#### **Great crested newt**

- 4.4 No ponds are present on Site and none lie within 250 m. KMBRC have returned four records of great crested newt within 2km of the Site, the nearest and most recent being from 2007, 1km north-east. There is no direct connectivity from the location of this record to the Site. It is considered highly unlikely that newts would be present here, particularly as the Site is isolated from any potential newt ponds and the surrounding main roads and industrial area would act as a barrier to newt movement potentially from the wider landscape.

#### **Further Survey**

- 4.5 Not all surveys had been finished at the time of writing. Surveys which were still in process include the following;
- ) Autumn bat static monitoring.
- 4.6 The results of this final static bat detector survey will be provided in an addendum report once complete on 14<sup>th</sup> September. All of the surveys will remain valid for two years after which time consideration should be given to updating them especially if conditions on site change in this time.

## 5 References

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KB Ecology (2018b) *Dormouse Report Rochester Airport, Master Plan 2017 AREA E*.

KB Ecology (2018c) *Reptile Survey Report Rochester Airport, Master Plan 2017 AREAS D AND E*.

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Medway (2012) *Core Strategy Examination*. Available at:  
[https://www.medway.gov.uk/info/200149/planning\\_policy/146/current\\_planning\\_policies/2](https://www.medway.gov.uk/info/200149/planning_policy/146/current_planning_policies/2)

The Multi-Agency Geographic Information for the Countryside (MAGIC) database  
(<http://www.magic.gov.uk/>)

## **6     Figures**

(overleaf)





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JOB REF: P18-388

PROJECT TITLE  
ROCHESTER AIRPORT,  
INNOVATION PARK MEDWAY


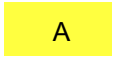


DRAWING TITLE  
Figure 1a: Phase 1 Habitat Map,  
Parcels 1 and 2




DATE: 29.08.2018  
DRAWN: MS

CHECKED: AH  
APPROVED: HB

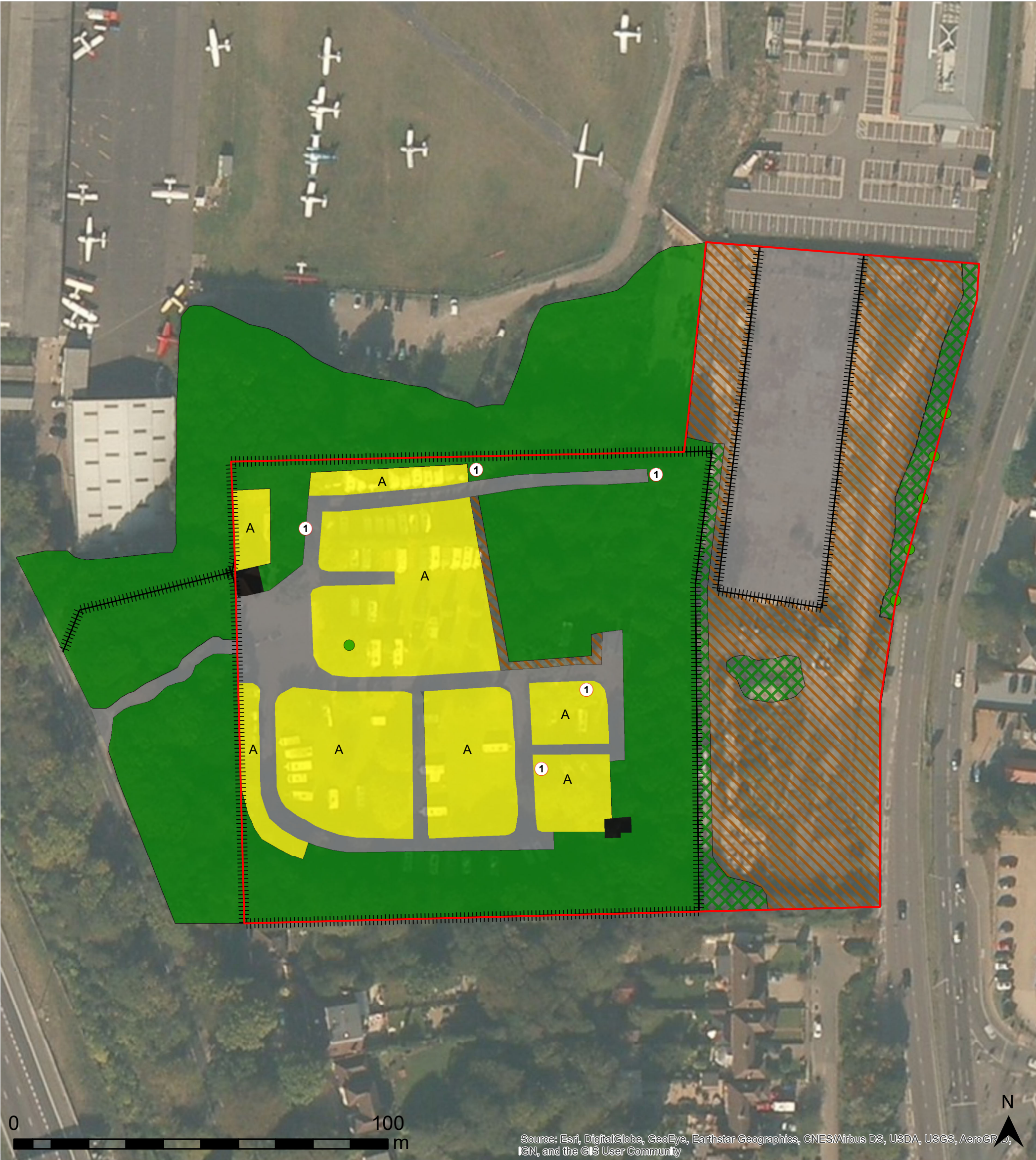
SCALE: 1:2,500  
STATUS: FINAL

LEGEND

-  Site boundary
-  A Amenity grassland
-  Hardstanding
-  SI Semi-improved grassland

-  Dense scrub
-  Tall ruderal
-  Fence





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PROJECT TITLE  
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DRAWING TITLE  
Figure 1b: Phase 1 Habitat Map,  
Parcels 3 and 4

DATE: 29.08.2018  
DRAWN: MS

CHECKED: AH  
APPROVED: HB

SCALE: 1:1,000  
STATUS: FINAL

LEGEND

- |  |                      |  |                   |
|--|----------------------|--|-------------------|
|  | Site boundary        |  | Amenity grassland |
|  | Broadleaved woodland |  | Building          |
|  | Dense scrub          |  | Fence             |
|  | Tall ruderal         |  | Target note       |
|  | Hardstanding         |  | Scattered tree    |





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PROJECT TITLE  
ROCHESTER AIRPORT,  
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DRAWING TITLE  
Figure 2: Bat Activity Survey Results

DATE: 29.08.2018  
DRAWN: MS  
CHECKED: AH  
APPROVED: HB  
SCALE: 1:4,500  
STATUS: FINAL

LEGEND

Site boundary

Size proportional to the total activity recorded at the detector

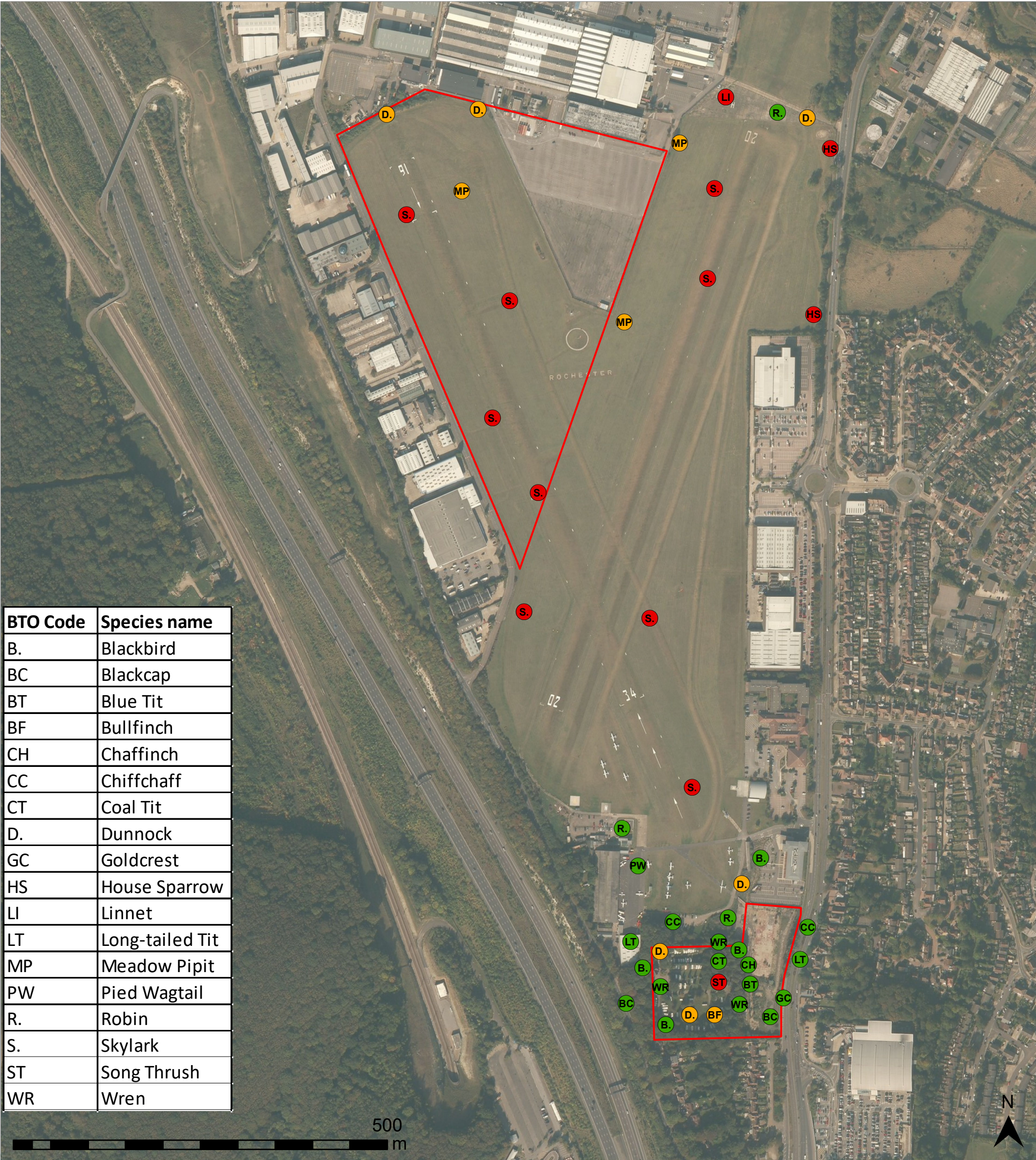
Common pipistrelle

Soprano pipistrelle

Common / Soprano pipistrelle

Other bat species





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PROJECT TITLE  
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DRAWING TITLE  
Figure 3: Breeding bird locations

DATE: 29.08.2018  
DRAWN: MS

CHECKED: AH  
APPROVED: HB

SCALE: 1:5,000  
STATUS: FINAL

LEGEND

Site boundary

Birds of Conservation Concern (BoCC) Status

- Green list
- Amber list
- Red list





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PROJECT TITLE  
ROCHESTER AIRPORT,  
INNOVATION PARK MEDWAY

DRAWING TITLE  
Figure 4: Ground Level Tree assessment Results

DATE: 29.08.2018  
DRAWN: COH  
CHECKED: AH  
APPROVED: PS  
SCALE: 1:1,000  
VERSION: 1.1

LEGEND

- Site boundary
- Development footprint

Trees with potential to support roosting bats

- Low
- Moderate

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## 7 Photographs

Photograph 1: Scrub along north bank of Parcel 1



Photograph 2: Parcel 2 hardstanding



Photograph 3: Parcel 3



Photograph 4: Woodland interior in Parcel 4



Photograph 5: House in Parcel 4 within negligible suitability for bat roosting



Photograph 6: Parcel 4 caravan park with woodland



## 8 Summaries of Relevant Policy, Legislation and Other Instruments

- 8.1 This section briefly summarises the legislation, policy and related issues that are relevant to the main text of the report. The following text does not constitute legal or planning advice.

### National Planning Policy Framework (England)

- 8.2 The Government published the National Planning Policy Framework (NPPF) on 24 July 2018. Text excerpts from the NPPF are shown where they may be relevant to planning applications and biodiversity including protected sites, habitats and species.
- 8.3 The Government sets out the three objectives for sustainable development (economy, social and environmental) at paragraphs 8-10 to be delivered through the plan preparation and implementation level and 'are not criteria against which every decision can or should be judged.' At paragraph 8c) the planning system's environmental objective refers to 'protecting and enhancing our natural, built and historic environment' and to 'helping to improve biodiversity'
- 8.4 In conserving and enhancing the natural environment, the NPPF (Paragraph 170) states that 'planning policies and decisions should contribute to and enhance the natural and local environment' by:
- ) Protecting and enhancing...sites of biodiversity value... '(in a manner commensurate with their statutory status or identified quality in the development plan)'.
  - ) Recognising the wider benefits from natural capital and ecosystem services including trees and woodland.
  - ) Minimising impacts on and providing net gains in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.
  - ) Preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability.
- 8.5 In respect of protected sites, at paragraph 171, the NPPF requires local planning authorities to distinguish, at the plan level, '...between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value...take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.'
- 8.6 Paragraph 174 refers to how plans should aim to protect and enhance biodiversity. Plans should: 'identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity [a footnote refers to ODPM Circular 06/2005 for further guidance in respect of statutory obligations for biodiversity in the planning system], wildlife corridors and stepping stones that connect them and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation;' and to 'promote the conservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.'
- 8.7 Paragraph 175 advises that, when determining planning applications, '...local planning authorities should apply the following principles:
- a. if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;



- b. development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments) should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- c. development resulting in the loss or deterioration of irreplaceable habitats, (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- d. development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.'

8.8 In paragraph 176, the following should be given the same protection as habitats sites<sup>4</sup>:

- i. potential Special Protection Areas and possible Special Areas of Conservation
- ii. listed or proposed Ramsar sites; and
- iii. sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.'

8.9 In paragraph 177 the NPPF refers back to sustainable development in relation to appropriate assessment and states: 'the presumption in favour of sustainable development does not apply where development requiring appropriate assessment because of its potential impact on a habitats site is being planned or determined.'

8.10 In paragraph 178, the NPPF refers to planning policies and decisions taking account of ground conditions and risks arising from land instability and contamination at sites. In relation to risks associated with land remediation account is to be taken of 'potential impacts on the natural environment' that arise from land remediation.

8.11 In paragraph 180 the NPPF states that planning policies and decisions should ensure that development is appropriate to the location and take into account likely effects (including cumulative) on the natural environment and , in doing so, they 'should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.'

**Government Circular ODPM 06/2005 Biodiversity and Geological Conservation (England only)**

8.12 Paragraph 98 of Government Circular 06/2005 advises that "the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat. Local authorities should consult Natural England before granting planning permission. They should consider attaching appropriate planning conditions or entering into planning obligations under which the developer would take steps to secure the long-term protection of the species. They should also advise developers that they must comply with any statutory species' protection provisions affecting the site concerned..."

8.13 Paragraph 99 of Government Circular 06/2005<sup>5</sup> advises that "it is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant

<sup>4</sup> Habitats sites are defined in the glossary as 'Any site which would be included within the definition at regulation 8 of the Conservation of Habitats and Species Regulations 2017 (as amended) for the purpose of those regulations, including candidate Special Areas of Conservation, Sites of Community Importance, Special Areas of Conservation, Special Protection Areas and any relevant Marine Sites.'

<sup>5</sup> ODPM Circular 06/2005. *Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impacts within the Planning System* (2005). HMSO Norwich.



material considerations may not have been addressed in making the decision. The need to ensure ecological surveys are carried out should therefore only be left to coverage under planning conditions in exceptional circumstances, with the result that the surveys are carried out after planning permission has been granted".

### **Standing Advice (GOV.UK - England only)**

- 8.14 The GOV.UK website provides information regarding protected species and sites in relation to development proposals: 'Local planning authorities should take advice from Natural England or the Environment Agency about planning applications for developments that may affect protected species.' GOV.UK advises that 'some species have standing advice which you can use to help with planning decisions. For others you should contact Natural England or the Environment Agency for an individual response.'
- 8.15 The standing advice (originally from Natural England and now held and updated on GOV.UK<sup>6</sup>) provides advice to planners on deciding if there is a 'reasonable likelihood' of protected species being present. It also provides advice on survey and mitigation requirements.
- 8.16 When determining an application for development that is covered by standing advice, in accordance with guidance in Government Circular 06/2005, Local planning authorities are required to take the standing advice into account. In paragraph 82 of the aforementioned Circular, it is stated that: 'The standing advice will be a material consideration in the determination of the planning application in the same way as any advice received from a statutory consultee...it is up to the planning authority to decide the weight to be attached to the standing advice, in the same way as it would decide the weight to be attached to a response from a statutory consultee.'

### **Natural Environment and Rural Communities (NERC) Act 2006 – Habitats and species of principal importance (England)**

- 8.17 The Natural Environment and Rural Communities (NERC) Act came into force on 1st October 2006. Section 41 (S41) of the Act require the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The list has been drawn up in consultation with Natural England as required by the Act. In accordance with the Act the Secretary of State keeps this list under review and will publish a revised list if necessary, in consultation with Natural England.
- 8.18 The S41 list is used to guide decision-makers such as public bodies, including local authorities and utilities companies, in implementing their duty under Section 40 of the NERC Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions, including development control and planning. This is commonly referred to as the 'Biodiversity Duty.'
- 8.19 Guidance for public authorities on implementing the Biodiversity Duty<sup>7</sup> has been published by Defra. One of the key messages in this document is that 'conserving biodiversity includes restoring and enhancing species populations and habitats, as well as protecting them.' In England the administration of the planning system and licensing schemes are highlighted as having a 'profound influence on biodiversity conservation.' Local authorities are required to take measures to "promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species. The guidance states that 'the duty aims to raise the profile and visibility of biodiversity, clarify existing commitments with regard to biodiversity, and to make it a natural and integral part of policy and decision making.'
- 8.20 In 2007, the UK Biodiversity Action Plan (BAP) Partnership published an updated list of priority UK species and habitats covering terrestrial, freshwater and marine biodiversity to focus conservation action for rarer species and habitats in the UK. The UK Post-2010 Biodiversity Framework<sup>8</sup>, which covers the period from 2011 to 2020, now succeeds the UK BAP. The UK priority list contained

<sup>6</sup> <https://www.gov.uk/protected-species-and-sites-how-to-review-planning-proposals#standing-advice-for-protected-species>

<sup>7</sup> Defra, 2007. *Guidance for Public Authorities on Implementing The Biodiversity Duty*.  
(<http://www.defra.gov.uk/publications/files/pb12585-pa-guid-english-070516.pdf>)

<sup>8</sup> JNCC and Defra (on behalf of the Four Countries' Biodiversity Group). 2012. *UK Post-2010 Biodiversity Framework*. July 2012.  
(<http://jncc.defra.gov.uk/page-6189>)

1150 species and 65 habitats requiring special protection and has been used as a reference to draw up the lists of species and habitats of principal importance in England.

- 8.21 In England, there are 56 habitats of principal importance and 943 species of principal importance on the S41 list. These are all the habitats and species found in England that were identified as requiring action in the UK BAP and which continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework.

### **European protected species (Animals)**

- 8.22 The Conservation of Habitats and Species Regulations 2017 consolidates various amendments that have been made to the 2010 and original (1994) Regulations which transposed the EC Habitats Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Council Directive 92/43/EEC) into national law.
- 8.23 “European protected species” (EPS) of animal are those which are shown on Schedule 2 of the Conservation of Habitats and Species Regulations 2010 (as amended). They are subject to the provisions of Regulation 43 of those Regulations. All EPS are also protected under the Wildlife and Countryside Act 1981 (as amended). Taken together, these pieces of legislation make it an offence to:
- a. Intentionally or deliberately capture, injure or kill any wild animal included amongst these species
  - b. Possess or control any live or dead specimens or any part of, or anything derived from a these species
  - c. deliberately disturb wild animals of any such species
  - d. deliberately take or destroy the eggs of such an animal, or
  - e. intentionally, deliberately or recklessly damage or destroy a breeding site or resting place of such an animal, or obstruct access to such a place
- 8.24 For the purposes of paragraph (c), disturbance of animals includes in particular any disturbance which is likely—
- a. to impair their ability—
    - i. to survive, to breed or reproduce, or to rear or nurture their young, or
    - ii. in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
  - b. to affect significantly the local distribution or abundance of the species to which they belong.
- 8.25 Although the law provides strict protection to these species, it also allows this protection to be set aside (derogated) through the issuing of licences. The licences in England are currently determined by Natural England (NE) for development works and by Natural Resources Wales in Wales. In accordance with the requirements of the Regulations (2010), a licence can only be issued where the following requirements are satisfied:
- a. The proposal is necessary ‘to preserve public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment’
  - b. ‘There is no satisfactory alternative’
  - c. The proposals ‘will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

### ***Definition of breeding sites and resting places***

- 8.26 Guidance for all European Protected Species of animal, including bats and great crested newt, regarding the definition of breeding and of breeding and resting places is provided by The European Council (EC) which has prepared specific guidance in respect of the interpretation of

various Articles of the EC Habitats Directive.<sup>9</sup> Section II.3.4.b) provides definitions and examples of both breeding and resting places at paragraphs 57 and 59 respectively. This guidance states that 'The provision in Article 12(1)(d) [of the EC Habitats Directive] should therefore be understood as aiming to safeguard the ecological functionality of breeding sites and resting places.' Further the guidance states: 'It thus follows from Article 12(1)(d) that such breeding sites and resting places also need to be protected when they are not being used, but where there is a reasonably high probability that the species concerned will return to these sites and places. If for example a certain cave is used every year by a number of bats for hibernation (because the species has the habit of returning to the same winter roost every year), the functionality of this cave as a hibernating site should be protected in summer as well so that the bats can re-use it in winter. On the other hand, if a certain cave is used only occasionally for breeding or resting purposes, it is very likely that the site does not qualify as a breeding site or resting place.'

### **European protected species (Plants)**

- 8.27 The Conservation of Habitats and Species Regulations 2010 (as amended) consolidate the various amendments that have been made to the Regulations. The original (1994) Regulations transposed the EC Habitats Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Council Directive 92/43/EEC) into national law.
- 8.28 "European protected species" (EPS) of plant are those which are present on Schedule 5 of the Conservation of Habitats and Species Regulations 2017. They are subject to the provisions of Regulation 46 of those Regulations.
- 8.29 Regulation 47 makes it an offence to deliberately pick, collect, cut, uproot or destroy a wild plant of an EPS. It also makes it an offence to have in possession or control any live or dead plant or part of plant which has been taken in the wild and which is an EPS (or listed in Annexe II(b) or IV(b) of the Habitats Directive).

### **Competent authorities**

- 8.30 Under Regulation 7 of the Conservation of Habitats and Species Regulations 2017 (as amended) a "competent authority" includes "any Minister of the Crown..., government department, statutory undertaker, public body of any description or person holding a public office."
- 8.31 In accordance with Regulation 9, "a competent authority must exercise their functions which are relevant to nature conservation, including marine conservation, so as to secure compliance with the requirements of the [Habitats and Birds] Directives. This means for instance that when considering development proposals a competent authority should consider whether EPS or European Protected Sites are to be affected by those works and, if so, must show that they have given consideration as to whether derogation requirements can be met."

### **Birds**

- 8.32 All nesting birds are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. In addition to this, for some rarer species (listed on Schedule 1 of the Act), it is an offence to disturb them whilst they are nest building or at or near a nest with eggs or young, or to disturb the dependent young of such a bird.
- 8.33 The Conservation of Habitats and Species Regulations 2017 places duties on competent authorities (including Local Authorities and National Park Authorities) in relation to wild bird habitat. These provisions relate back to Articles 1, 2 and 3 of the EC Directive on the conservation of wild birds (2009/147/EC, 'Birds Directive'<sup>10</sup>) (Regulation 10 (3)) requires that the objective is the 'preservation, maintenance and re-establishment of a sufficient diversity and area of habitat for wild

<sup>9</sup> Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC. (February 2007), EC.

<sup>10</sup> 2009/147/EC Birds Directive (30 November 2009. European Parliament and the Council of the European Union.

birds in the United Kingdom, including by means of the upkeep, management and creation of such habitat, as appropriate, having regard to the requirements of Article 2 of the new Wild Birds Directive...' Regulation 10 (7) states: 'In considering which measures may be appropriate for the purpose of security or contributing to the objective in [Regulation 10 (3)] Paragraph 3, appropriate account must be taken of economic and recreational requirements'.

- 8.34 In relation to the duties placed on competent authorities under the 2017 Regulations, Regulation 10 (8) states: 'So far as lies within their powers, a competent authority in exercising any function [including in relation to town and country planning] in or in relation to the United Kingdom must use all reasonable endeavours to avoid any pollution or deterioration of habitats of wild birds (except habitats beyond the outer limits of the area to which the new Wild Birds Directive applies).'

### **Badger**

- 8.35 Badger is protected under the Protection of Badgers Act 1992. It is not permitted to wilfully kill, injure, take, possess or cruelly ill-treat a badger, or to attempt to do so; or 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. A badger sett is defined in the legislation as "a structure or place, which displays signs indicating current use by a badger".
- 8.36 ODPM Circular 06/2005<sup>11</sup> provides further guidance on statutory obligations towards badger within the planning system. Of particular note is paragraph 124, which states that "The likelihood of disturbing a badger sett, or adversely affecting badgers' foraging territory, or links between them, or significantly increasing the likelihood of road or rail casualties amongst badger populations, are capable of being material considerations in planning decisions."
- 8.37 Natural England provides Standing Advice<sup>12</sup>, which is capable of being a material consideration in planning decisions. Natural England recommends mitigation to avoid impacts on badger setts, which includes maintaining or creating new foraging areas and maintaining or creating access (commuting routes) between setts and foraging/watering areas.

### **Reptiles**

- 8.38 All native reptile species receive legal protection in Great Britain under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Viviparous lizard, slow-worm, grass snake and adder are protected against killing, injuring and unlicensed trade only. Sand lizard and smooth snake receive additional protection as "European Protected species" under the provisions of the Conservation of Habitats and Species Regulations 2017 and are fully protected under the Wildlife and Countryside Act 1981 (as amended).
- 8.39 All six native species of reptile are included as 'species of principal importance' for the purpose of conserving biodiversity under Section 41 (England) of the NERC Act 2006 and Section 7 of the Environment (Wales) Act 2016.
- 8.40 Current Natural England Guidelines for Developers<sup>13</sup> states that 'where it is predictable that reptiles are likely to be killed or injured by activities such as site clearance, this could legally constitute intentional killing or injuring.' Further the guidance states: 'Normally prohibited activities may not be illegal if 'the act was the incidental result of a lawful operation and could not reasonably have been avoided'. Natural England 'would expect reasonable avoidance to include measures such as altering development layouts to avoid key areas, as well as capture and exclusion of reptiles.'
- 8.41 The Natural England Guidelines for Developers state that 'planning must incorporate two aims where reptiles are present:

<sup>11</sup> ODPM Circular 06/2005. *Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impacts within the Planning System* (2005). HMSO Norwich.

<sup>12</sup> <http://www.naturalengland.org.uk/ourwork/planningdevelopment/spatialplanning/standingadvice/specieslinks.aspx>

<sup>13</sup> English Nature, 2004. *Reptiles: guidelines for developers*. English Nature, Peterborough.  
<http://publications.naturalengland.org.uk/publication/76006?category=31018>

- ) To protect reptiles from any harm that might arise during development work;
- ) To ensure that sufficient quality, quantity and connectivity of habitat is provided to accommodate the reptile population, either on-site or at an alternative site, with no net loss of local reptile conservation status.'

**Wild mammals in general**

- 8.42 The Wild Mammals (Protection) Act 1996 (as amended) makes provision for the protection of wild mammals from certain cruel acts, making it an offence for any person to intentionally cause suffering to any wild mammal. In the context of development sites, for example, this may apply to rabbits in their burrows.