



# **Airbus Broughton - Occupational Health & Wellbeing Centre**

Preliminary Ecological Assessment

9 January 2019



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# Executive summary

Mott MacDonald Limited were commissioned by Airbus UK Operations to undertake a Preliminary Ecological Appraisal Report (PEAR) of a site in Broughton, Chester, Cheshire (central Ordnance Survey Grid Reference SJ 34421 64217).

The Site selected by Airbus UK to locate the new Occupational Health & Wellbeing Centre is adjacent to the main entrance to the South Site, next to the Broughton FC Football Stadium and a disused grassed area close to the training pitches. The site is currently outside the Airbus UK Plant Security Line and not classed as Airside with regards Airfield Operations.

The site has been selected for a number of reasons not least its accessibility for Occupational Health Users.

The new facility will be re-providing existing services currently offered by Airbus UK at other locations within the site. Limited hardstanding and associated car parking will also be provided.

This Preliminary Ecological Appraisal Report provides an assessment of the protected and/or notable habitats and species which occur or have the potential to occur, in or near to the site and may be impacted by the proposed works, following relevant guidance (CIEEM, 2017).

A desk study of the site and the surrounding area was conducted in December 2018, which analysed species records within 2.0km of the area and identified designated sites. It was identified that no statutory/non-statutory designated sites are located within 2.0km of the site. No protected species observed during the survey.

The findings of this PEAR conclude that the proposed works will have no significant ecological impact on the land within or surrounding the site. No further surveys are required due to the limited habitat on site which had minimal ecological value and the lack of potential to support protected species.

# 1 Introduction

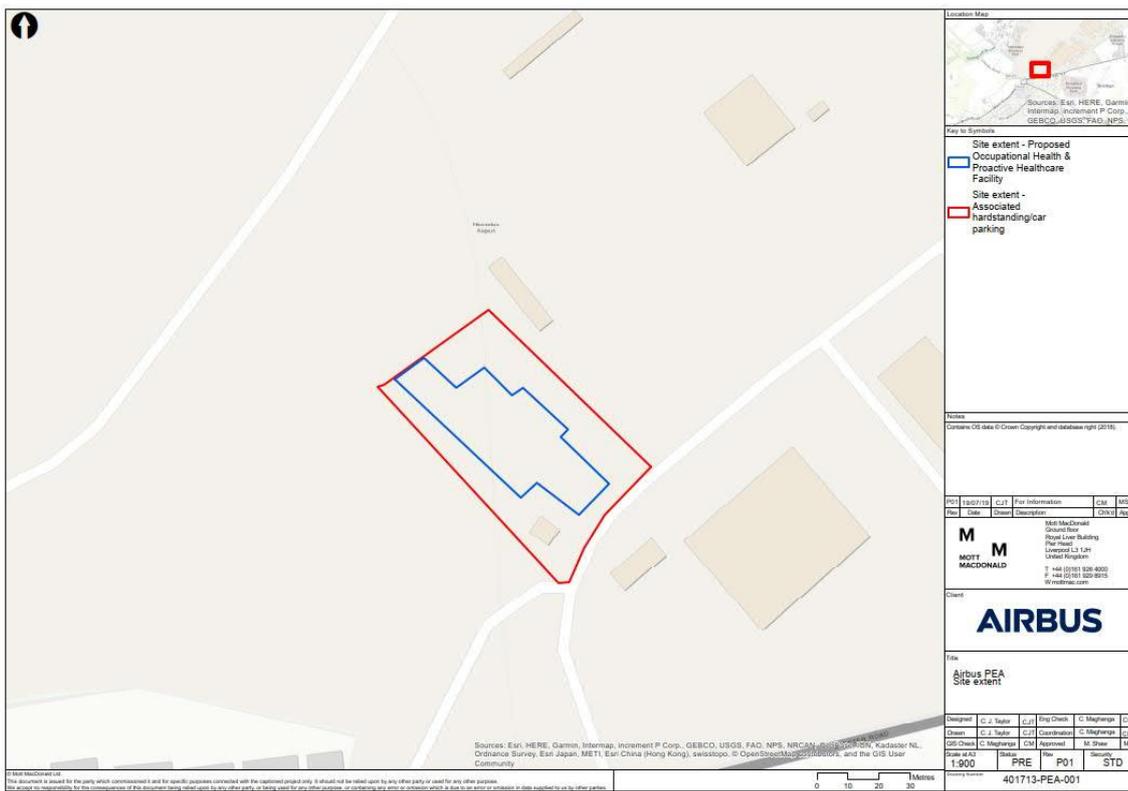
## 1.1 Project Background

Mott MacDonald Limited (MML) has been commissioned by Airbus UK Operations to carry out a Preliminary Ecological Appraisal (PEA) for the proposed creation of an Occupational Health & Wellbeing Centre. The new facility will be re-providing existing services currently offered by Airbus UK at other locations within the site.

The proposed works is in Broughton, Chester, Cheshire (central Ordnance Survey Grid Reference SJ 34421 64217). As part of the design process for this scheme MML have undertaken a Preliminary Ecological Appraisal of the site and its immediate surroundings to assess any ecological constraints that may be placed upon any proposed construction activity.

The site covers an area of approximately 0.6 hectares and is located immediately north of Broughton, immediately east of Hawarden Airport, Chester. A location plan of the site is illustrated within Map 1.

**Map 1: Location Plan**



### 1.1.1 Proposed Works

The Site selected by Airbus UK to locate the new Occupational Health & Wellbeing Centre is adjacent to the main entrance to the South Site, next to the Broughton FC Football Stadium and a disused grassed area close to the training pitches. The site is currently outside the Airbus UK Plant Security Line and not classed as Airside with regards Airfield Operations.

The site has been selected for a number of reasons not least its accessibility for Occupational Health Users.

The new facility will be re-providing existing services currently offered by Airbus UK at other locations within the site. Limited hardstanding and associated car parking will also be provided.

## 1.2 Scope of the Report

The purpose of this report is to provide an initial assessment of the ecological importance of the habitats present within the boundary of the site and their potential to support protected or notable species, and if present, potential ecological constraints to the proposed development.

The scope of this report is to:

- Carry out an extended Phase 1 habitat survey (Joint Nature Conservation Committee (JNCC), 2010) to provide a description of the existing broad habitat types on the training ground, and to establish the presence or potential presence of any protected or notable species. These are provided in drawing form within Appendix A, supplemented by target notes in Appendix B if applicable.
- For this particular report, no target notes were required, so have been omitted from the report.
- Undertake a desk-top study to identify any existing information regarding protected or notable species and sites with a nature conservation designation within a 2.0km radius of the central grid reference (Appendix C);
- Produce a report detailing any key ecological constraints to the proposed development in terms of designated sites, habitats and/or protected and notable species;
- Provide recommendations for further ecological survey work necessary to produce an ecological baseline for the site;
- Identify any mitigation measures that may be required to offset potential development impacts;
- A general legislation and policy overview relevant to this PEA has been included in the Appendix.

## 1.3 Zone of Influence

The current guidance on ecological assessments (Chartered Institute of Ecology and Environmental Management, 2016) recommends that all ecological features that occur within a 'zone of influence' (Zol) for a proposed development are investigated. The Zol includes:

- Areas directly within the land take for the proposed development and access;
- Areas which will be temporarily affected during construction;
- Areas likely to be impacted by hydrological disruption; and
- Areas where there is a risk of pollution and noise disturbance during construction and/or operation.

The ZoI is variable depending on the ecological receptors affected. For this assessment the following zones have been defined (Table 1):

**Table 1: Zone of influence used for this assessment**

Ecological Features	Zone of Influence
Designated sites	2.0km buffer area from central grid reference
Badgers	50m from site boundary
Bats	2.0km buffer area from central grid reference
Reptiles and amphibians	250m from site boundary
Water voles	50m from the site boundary

### 1.4 Legislative Context and Policy Framework

The key legislation relating to ecology and the environment is the Wildlife and Countryside Act 1981, as amended, (WCA) which implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive) in Great Britain. The WCA is complemented by the Conservation of Habitats and Species Regulations 2017 (CHSR, 2017), which implements Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive). The Regulations provide for the designation and protection of 'European sites', and the protection of 'European protected species'. The species and habitats listed by these measures are legally protected to varying degrees through the WCA. Together, the WCA and CHSR 2017 form the precedent for species and habitat protection in England and Wales.

- The Wellbeing of Future Generations (Wales) Act 2015, which is concerned with improving social, economic, environmental and cultural well-being of Wales, is also relevant as it requires Welsh Water to consider biodiversity as part of its 'Resilient Wales' goal.
- At national level, Chapter 6 of Planning Policy Wales (which relates to conserving and enhancing the natural environment) requires Local Authorities to take measures to:
  - Promote the conservation of landscape and biodiversity, in particular the conservation of native wildlife and habitats;
  - Ensure that action in Wales contributes to meeting international responsibilities and obligations for the natural environment;
  - Ensure that statutorily designated sites are properly protected and managed;
  - Safeguard protected species; and
  - Promote the functions and benefits of soils, and in particular their function as a carbon store.

## 2 Methodology

### 2.1 Desk Study

A desk study was undertaken at the beginning of December 2018, as recommended in the Chartered Institute of Ecology and Environmental Management (CIEEM) 'Guidelines for Preliminary Ecological Appraisal' (2016), to determine the presence of any designated nature conservation sites and protected or notable species that have been recorded within a 2.0km radius of the site extent. Data older than 10 years is considered to be less important than more recent data due to the length of time that has elapsed since being collected (and the chance that they are no longer valid) and have therefore been excluded from the desk study.

It should be noted that the absence of records should not be taken as confirmation that a species is absent from the search area.

Data was obtained from Cofnod North Wales Environmental Information Service, as well as relevant publications, reports and online databases. These included the Multi-Agency Geographic Information for the Countryside (MAGIC), JNCC. Further detail is provided within this document in Section 3.

### 2.2 Preliminary Ecological Appraisal

#### 2.2.1 Extended Phase 1 Habitat Survey

A field survey, in the form of an Extended Phase 1 Habitat Survey was undertaken. Habitats within the site were identified and mapped in compliance with the 'Handbook for Phase 1 habitat survey: a technique for environmental audit' (JNCC, 2010). Dominant plant species were noted, as were any protected, uncommon or invasive species listed on Schedule 9 of the Wildlife and Countryside Act.

An assessment was also undertaken of the likely presence or absence of protected and notable species within the Zol of the proposed works. This was based on the known distribution of species, habitat suitability and/or direct evidence such as field signs or observations. The methodologies and assessment criteria used were based on current published guidance where available.

Any protected or notable species present within the survey area were recorded either by direct observation or indirectly from the presence of their field signs. The survey methods for specific species are detailed below.

Protected species not included below were omitted due to the habitat being considered unsuitable and/or proposed works were not considered to negatively impact the species or encroach on areas where the species may be present. This includes for example, Marsh fritillary (*Euphydryas aurinia*).

#### 2.2.2 Badgers

The survey followed good practice guidelines as set out in Harris *et al* (1989). Evidence of badger (*Meles meles*) within the development area was searched for. This included: footprints; setts; latrines; paths; scratch posts at the base of tree trunks; snuffle holes; day nests and hair traces.

### 2.2.3 Bats

The survey followed good practice guidelines as set out in the Bat Mitigation Guidelines 3rd Edition (Mitchell-Jones *et al*, 2004) and Bat Surveys: Good Practice Guidelines 3rd Edition (Collins, 2016). Trees on site were surveyed for evidence of, or potential for, roosting bats.

**Table 2: Bat Suitability Index**

Suitability	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site to be used by commuting or foraging bats.
Low	<p>A structure with one or more potential roost features (PRF) that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).</p> <p>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.</p>	<p>Habitat that could be used by small numbers of commuting bats such as a hedgerow with gaps or un-vegetated stream, but isolated, (i.e. not very well connected to the surrounding landscape by another habitat).</p> <p>Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.</p>
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 (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	<p>Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens.</p> <p>Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.</p>
High	A structure or tree with one or more potential 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.	<p>Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge.</p> <p>High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broad-leaved woodland, tree-lined watercourses and grazed parkland.</p> <p>Site is close to and connected to known roosts.</p>

### 2.2.4 Reptiles and Amphibians

Guidance from Natural England (2011) Reptile Mitigation guidelines and Froglife (1999) Advice Sheet 10 was adhered to in order to follow best practice procedures.

Surveying of the site for its potential suitability for reptiles and amphibians involved assessing any habitats and features appropriate for refuging, basking, hibernating and foraging. This included wooded areas, hedgerows, stone walls/rock, watercourses, hibernacula as well as holes and burrows.

### 2.2.5 Otter and Water Vole

The survey followed good practice guidelines as set out in Monitoring the Otter (*Lutra lutra*) Handbook (Chanin, 2003), Natural England's Otters: surveys and mitigation for development projects (2014) and Dean, M. *et al.* (2016), The Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series), 3rd Edition. Evidence for otters and water voles (*Arvicola*

*amphibius*) within the development area was searched for. This included: footprints, burrows, latrines and runs.

### 2.2.6 Birds

Habitats and features both immediately surrounding the site and within the red line site boundary were assessed for their potential to support common breeding and (or) wintering birds. If any rare species were believed to be present or any features likely to support rare species were recorded, further specialised ornithological advice would be sought.

## 2.3 Limitations and Exceptions

Biological records obtained from third parties and presented in the desk study do not represent a full and complete species list for the area. They are mostly given by individuals on an ad hoc basis, often meaning there are areas of deficiency in the data.

Ecological surveys are limited to factors which affect the presence of plants and animals, such as time of year, migration patterns and behaviour. With a single survey visit it is possible that certain species may have been overlooked or under-recorded during the assessment as optimal survey periods vary from species to species.

This Preliminary Ecological Assessment therefore cannot be considered to provide a wholly comprehensive account of the ecological interest of Airbus UK Operations and it should be noted that this report does not constitute an Ecological Impact Assessment. The survey does, however, provide a “snapshot” of the ecological interest present on the day of the survey visit.

## 3 Results

### 3.1 Desk Study

The desk study involved consulting the following organisations, ecological reports and ecological databases:

- Cofnod North Wales Environmental Information Service (December 2018)
- Multi Agency Geographical Information for the Countryside (MAGIC) website (<http://www.natureonthemap.naturalengland.org.uk/MagicMap>);
- Natural England (NE) (<http://www.gov.uk/government/organisations/natural-england>);
- Biodiversity Action Reporting System (BARS) (<http://ukbars.defra.gov.uk/>);
- Joint Nature Conservation Committee (JNCC) (<http://jncc.defra.gov.uk/>)

### 3.2 Statutory Designated Sites

There are no statutory designated sites within 2.0km of the proposed scheme.

### 3.3 Non-Statutory Designated Sites

There are no non-statutory sites within 2.0km of the proposed scheme.

### 3.4 Protected Species Records

Table 3 below contains a summary of protected species records found, with further information found in Appendix C (Table 6). Those emitted from the below includes records found between 1.1-2.0km, as well as bird species not listed under a red status under the Birds of Conservation Concern 4 (BoCC) (2015).

**Table 3: Summary of protected species data as provided by local records centre**

Taxon group	Species	Distance from site extent	Total number of records (<10 years old)	Most recent record
<b>Birds</b>				
	Cuckoo ( <i>Cuculus canorus</i> )	1.0km north west (Grid reference SJ35500 64500)	1	2015
	Fieldfare ( <i>Turdus pilaris</i> )	0.8km south east (Grid reference SJ 34500 63500)	1	2010
	Lapwing ( <i>Vanellus vanellus</i> )	0.3km north (Grid reference 34500 64500)	15	2015
	Linnet ( <i>Linaria cannabina</i> )	0.8km south east (Grid reference SJ 35236 64060)	4	2017
	Skylark ( <i>Alauda arvensis</i> )	1.0km north west (Grid reference 33500 65600)	10	2018
<b>Mammals</b>				
	Brown hare ( <i>Lepus europaeus</i> )	0.5km north west (Grid reference SJ 3399564455)	12	2017

Taxon group	Species	Distance from site extent	Total number of records (<10 years old)	Most recent record
	Eurasian badger ( <i>Meles meles</i> )	0.9km north west (Grid reference SJ 33595 64545)	7	2017
	Common Pipistrelle ( <i>Pipistrellus pipistrellus</i> )	0.5km south east (Grid reference 34950 64150)	10	2017
	European hedgehog ( <i>Erinaceus europaeus</i> )	0.7km south east (Grid reference SJ 34295 63545)	6	2017
	Noctule bat ( <i>Nyctalus noctula</i> )	0.5km south east (Grid reference SJ 34950 64150)	7	2017
	Records labelled as 'Pipistrellus bat species' ( <i>Pipistrellus</i> sp.)	0.8km north east (Grid reference SJ35250 64250)	2	2017
	Soprano pipistrelle ( <i>Pipistrellus pygmaeus</i> )	0.5km north east (Grid reference SJ 34950 64150)	7	2017
	Water vole ( <i>Arvicola amphibius</i> )	0.7km north west (Grid reference SJ 34105 64895)	6	2017
	Records labelled as 'Whiskered/Brandt's Bat agg' ( <i>Myotis mystacinus/brandtii</i> agg.)	0.5km south east (Grid reference SJ 34950 64150)	4	2017
<b>Reptiles and amphibians</b>				
	Common frog ( <i>Rana temporaria</i> )	0.5km south (Grid reference SJ 34497 63738)	28	2018
	Common toad ( <i>Bufo bufo</i> )	0.5km south (Grid reference SJ 34497 63738)	2	2016
	Great crested newt ( <i>Triturus cristatus</i> )	0.5km south (Grid reference SJ 34497 63738)	40	2018
	Palmate newt ( <i>Lissotriton helveticus</i> )	0.5km south (Grid reference SJ 34566 63744)	8	2018
	Slow-worm ( <i>Anguis fragilis</i> )	0.8km south west (Grid reference SJ 3429 563545)	1	2011
	Smooth newt ( <i>Lissotriton vulgaris</i> )	0.5km south (Grid reference SJ 34550 63750)	66	2018
<b>Non-native invasive species</b>				
	American mink ( <i>Neovison vison</i> )	0.9km south east (Grid reference SJ 35125 63735)	1	2017

Taxon group	Species	Distance from site extent	Total number of records (<10 years old)	Most recent record
	Giant hogweed ( <i>Heracleum mantegazzianum</i> )	0.8km south east (Grid reference 34500 63500)	4	2017
	Japanese knotweed ( <i>Fallopia japonica</i> )	0.4km south east (Grid reference SJ 34750 64050)	1	2014
	New Zealand pigmyweed ( <i>Crassula helmsii</i> )	0.5km south east (Grid reference SJ 34566 63744)	2	2017
	Wall cotoneaster ( <i>Cotoneaster horizontalis</i> )	0.4km south east (Grid reference SJ 34750 64050)	2	2014

Source: Cofnod North Wales Environmental Information Service, 2018

### 3.5 Site visit

A site visit and Extended Phase 1 Habitat Survey was carried out on 14<sup>th</sup> December 2018 by Caroline Maghanga (Senior Ecologist) the salient features were recorded, a summary of which are provided below.

All habitats were mapped according to the Extended Phase 1 Habitat Survey methodology (JNCC, 2010), with a special focus on the site's potential to support protected species. The habitats recorded within the site are described individually below, in order of dominance or significance in the context of the site and photographs accompany habitat descriptions. The presence of any invasive plant species was also noted. An assessment was also undertaken of the likely presence or absence of protected and notable species within the Zol of the proposed works. This was based on the known distribution of species, habitat suitability and/or direct evidence such as field signs or observations. The methodologies and assessment criteria used were based on current published guidance. The Phase 1 Habitat map is provided in Appendix A, with legislative context in Appendix B.

#### 3.5.1 Extended Phase 1 Habitat Survey – Habitats

As part of the Extended Phase 1 Habitat Assessment, the following habitats were mapped and recorded. Photographs relating to the features are referenced below and discussed in the following section. Photographs accompany habitat descriptions.

The Phase 1 Habitat Map is provided in Appendix A. Photographs accompany habitat descriptions.

### Broadleaved parkland/scattered trees (A3.1)

Two trees were observed in the south east extent of the site, identified as a mature common yew (*Taxus baccata*) and a semi-mature sycamore (*Acer pseudoplatanus*) tree.

**Figure 2: Trees located on site.**



Source: C. Maghanga, 2018

**Figure 3: Close view of mature yew tree.**



Source: C. Maghanga, 2018

### Cultivated/disturbed land - amenity grassland (J1.2)

Throughout the site lies amenity grassland in the form of a playing field. Species were not able to be identified due to short sward length.

**Figure 4: Amenity grassland (1).**



Source: C. Maghanga, 2018

## Fence (J2.4)

Located throughout the site, security fencing is present to establish property line boundaries or create safety barriers for pedestrians and vehicles.

**Figure 5: Fence with amenity grassland.**



Source: C. Maghanga, 2018

**Figure 6: Boundary fencing.**



Source: C. Maghanga, 2018

### 3.5.2 Protected species

No protected species were recorded within or near to the site during the extended Phase 1 survey.

### 3.5.3 Invasive species

There were no invasive plant species present on site during the extended Phase 1 survey.

## 4 Interpretation

### 4.1 Interpretation

The interpretations of the desk study and site visit results are discussed under the appropriate headings below.

### 4.2 Designated Sites

There are no statutory or non-statutory designated sites within 2.0km of the site.

### 4.3 Protected and/or Notable species

#### 4.3.1 Birds

There was no evidence of birds on site, however several records returned within the 2.0km search radius such as cuckoo (1.0km away), fieldfare (0.8km), lapwing (0.3km), linnet (0.8km) and skylark (1.0km).

#### 4.3.2 Badgers

There was no evidence of badgers on site, and due to the connectivity and lack of suitable habitat, it is not anticipated that this species will be found within the site extent.

#### 4.3.3 Bats

Bats have been recorded within the 2.0km search radius and but not within the site extent. Two individual trees adjacent to the site are deemed to be of negligible suitability for roosting bats, with a lack of suitable roosting features.

#### 4.3.4 Otters and water voles

There was no evidence of otters and water voles on site and no records returned within the 2.0km search radius for otters. There are no watercourses present on site.

#### 4.3.5 Reptiles and amphibians

There was no evidence of reptiles and amphibians on site, however several records returned within the 2.0km search radius such as common frog (0.5km away), common toad (0.5km), great crested newt (0.5km), palmate newt (0.5km), slow-worm (0.8km) and smooth newt (0.8km). Due to the connectivity and lack of suitable habitat, it is not anticipated that this species will be found within the site extent.

#### 4.3.6 Invasive species

There was no evidence of invasive species on site, however records returned within the 2.0km search radius such as mink (0.9km away), giant hogweed (0.8km), Japanese knotweed (0.4km), New Zealand pygmyweed (0.5km) and wall cotoneaster (0.4km). Due to the lack of invasive species/suitable habitat within the site extent/suitable habitat, it is not anticipated that these species will be found within the site extent.

## 5 Implications and Recommendations

The following table summarises the implications and recommendations advised for the Airbus UK Operations site.

**Table 4: Implications and Recommendations**

<b>Species / Habitat</b>	<b>Feature(s)</b>	<b>Implications and Recommendations</b>
Birds	Trees and vegetation on site	If works involve tree clearance, avoid vegetation clearance during nesting season (28th Feb – 31st Aug inclusive). If this is not possible, a breeding bird check must be undertaken a maximum of 48 hours immediately prior to the start of works by a suitably qualified and experienced Ecologist to ensure no breeding birds are present within the vegetation due to be cleared.
Badger	None	None
Bats	Trees	None
Reptiles and amphibians	None	None – lack of connectivity and suitable habitat for nearby species.
Otter and water vole	None	None – lack of connectivity and suitable habitat for nearby species.
Invasive species	None	None – lack of connectivity/suitable habitat

## 6 Conclusion

A Preliminary Ecological Appraisal was undertaken to assess the potential impact of the proposed work on protected and notable species.

Desk study analysis and a field survey have identified that protected or notable species present minimal ecological constraints to the proposed works.

However, if either of the two trees on site require felling during nesting breeding bird season (28<sup>th</sup> Feb – 31<sup>st</sup> August inclusive), a nesting bird check must be undertaken 24-48 hours prior to the vegetation clearance. All surveys must be undertaken by a suitably qualified and experienced ecologist. It should also be noted that some birds will attempt to nest all year round, and these are still protected under the relevant legislation.

As recommended, contractors should follow the advice as outlined in Table 4.

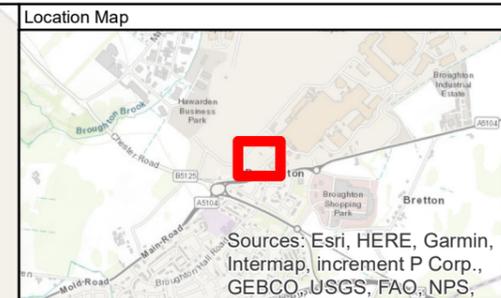
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## A. Phase 1 Habitat Map



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS,

Key to Symbols

- Site extent - Proposed Occupational Health & Proactive Healthcare Facility
- Site extent - Associated hardstanding/car parking
- J1.2 - Cultivated/disturbed land - amenity grassland
- A3.1 - Broadleaved parkland/scattered trees
- Fence (J2.4)

Notes

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Rev	Date	Drawn	Description	Ch'k'd	App'd
P01	19/07/19	CJT	For Information	CM	MS

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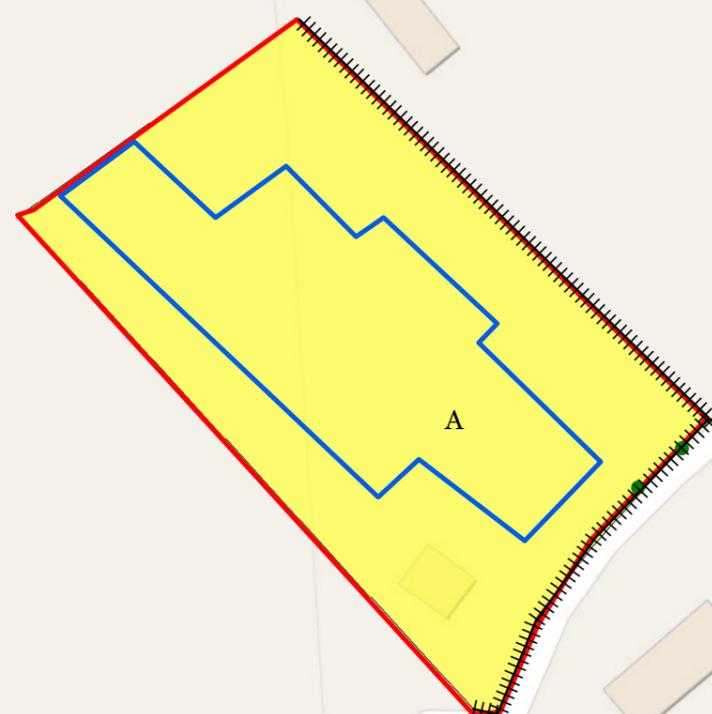
Title

Airbus PEA  
Phase 1 Habitat Map

Designed	C. J. Taylor	CJT	Eng Check	C. Maghanga	CM
Drawn	C. J. Taylor	CJT	Coordination	C. Maghanga	CM
GIS Check	C. Maghanga	CM	Approved	M. Shaw	MS

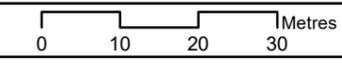
Scale at A3	Status	Rev	Security
1:900	PRE	P01	STD

Drawing Number  
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Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

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## B. Legislative Context and Policy Framework

The key legislation relating to ecology and the environment is the Wildlife and Countryside Act 1981, as amended, (WCA) which implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive) in Great Britain. The WCA is complemented by the Conservation of Habitats and Species Regulations 2017 (CHSR, 2017), which implements Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive). The Regulations provide for the designation and protection of 'European sites', and the protection of 'European protected species'. The species and habitats listed by these measures are legally protected to varying degrees through the WCA. Together, the WCA and CHSR 2017 form the precedent for species and habitat protection in England and Wales.

The Wellbeing of Future Generations (Wales) Act 2015, which is concerned with improving social, economic, environmental and cultural well-being of Wales, is also relevant as it requires Welsh Water to consider biodiversity as part of its 'Resilient Wales' goal.

At national level, Chapter 6 of Planning Policy Wales (which relates to conserving and enhancing the natural environment) requires Local Authorities to take measures to:

- Promote the conservation of landscape and biodiversity, in particular the conservation of native wildlife and habitats;
- Ensure that action in Wales contributes to meeting international responsibilities and obligations for the natural environment;
- Ensure that statutorily designated sites are properly protected and managed;
- Safeguard protected species; and
- Promote the functions and benefits of soils, and in particular their function as a carbon store. Species-specific legislation relevant to this report is outlined below:

### B.1 Badgers

Badgers and their setts are protected under the Badgers Act 1992. This makes it an offence to:

- Directly or indirectly kill, injure or take badgers,
- Cruelly ill-treat a badger,
- Dig for badger,
- Intentionally or recklessly damage or destroy a badger sett, or obstruct access to it,
- Cause a dog to enter a badger sett, and;
- Disturb a badger when it is occupying a sett.

### B.2 Bats

All 17 species of UK bats and their roosts are fully protected under Section 9 of the WCA and the Conservation of Habitats and Species Regulations 2017 (as amended) and regulation 41 for European Protected Species. It is an offence to;

- Intentionally or recklessly kill, injure or take a bat,

- Intentionally or recklessly damage,
- Destroy or obstruct access to any structure or place used for shelter or protection by a bat, and;
- To intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for that purpose.

### **B.3 Reptiles and amphibians (including great Crested Newts)**

Reptile and amphibian species are generally wide-spread species throughout the whole of UK reptiles and amphibians are listed in Schedule 5 of the WCA. It is an offence to:

- Trade and/or sell

Reptiles are further protected, and it is an offence to, also:

- Kill and injure.

#### **B.3.1 Great Crested Newts**

Further to the protection afforded to amphibians and reptiles under Schedule 5 of the WCA, Great Crested Newts are also afforded protection as a European protected species. Therefore, it is an offence to:

- Kill, injure or capture a great crested newt,
- Disturb a great crested newt in its place of shelter or breeding,
- Obstruct, damage or destroy areas of habitation, and;
- Possess, control transport, sell, exchange or offer for sale or exchange any dead or live great crested newts.

### **B.4 Breeding Birds**

All wild birds are afforded protection under Part 1 of the WCA. It is an offence to:

- Intentional or reckless killing, injuring and taking.
- Active nests are protected from intentional or reckless taking, damage and destruction.

Birds listed under Schedule 1 have further protection from disturbance during the breeding season.

## C. Protected Species Records

**Table 5: Protected species data as provided by local records centre**

Taxon group	Species	Distance from site extent	Total number of records (<10 years old)	Most recent record
Birds				
	Barn owl ( <i>Tyto alba</i> )	0.3km north (Grid reference SJ 34534 64536)	28	2016
	Black-headed gull ( <i>Chroicocephalus ridibundus</i> )	1.1km north east (Grid reference SJ35500 64500)	1	2015
	Bullfinch ( <i>Pyrrhula pyrrhula</i> )	0.7km east (Grid reference SJ35115 64225)	4	2017
	Common gull ( <i>Larus canus</i> )	0.7m south east (Grid reference SJ 35050 63950)	1	2013
	Cuckoo ( <i>Cuculus canorus</i> )	1.0km north west (Grid reference SJ35500 64500)	1	2015
	Curlew ( <i>Numenius arquata</i> )	1.7km north west (Grid reference SJ 34050 65950)	3	2008
	Dunnock ( <i>Prunella modularis</i> )	0.9km south east (Grid reference SJ 34950 63450)	2	2017
	Fieldfare ( <i>Turdus pilaris</i> )	0.8km south east (Grid reference SJ 34500 63500)	1	2010
	Goshawk ( <i>Accipter gentilis</i> )	0.8km south east (Grid reference 34500 63500)	1	2008
	Herring gull ( <i>Larus argentatus</i> )	1.1 km north east (Grid reference 35500 64500)	1	2015
	House martin ( <i>Delichon urbicum</i> )	1.0km north west (Grid reference SJ 33500 64500)	6	2015
	House sparrow ( <i>Passer domesticus</i> )	1.1km north east (Grid reference SJ 35500 64500)	42	2015
	Jack snipe ( <i>Lymnocyptes minimus</i> )	0.8km south east (Grid reference SJ 34965 63655)	1	2017
	Kestrel ( <i>Falco tinnunculus</i> )	0.3km north (Grid reference 34500 64500)	19	2018
	Lapwing ( <i>Vanellus vanellus</i> )	0.3km north (Grid reference 34500 64500)	15	2015
	Lesser Black-backed Gull ( <i>Larus fuscus</i> )	1.1km north east (Grid reference SJ 35500 64500)	2	2015

Taxon group	Species	Distance from site extent	Total number of records (<10 years old)	Most recent record
	Linnet ( <i>Linaria cannabina</i> )	0.8km south east (Grid reference SJ 35236 64060)	4	2017
	Mallard ( <i>Anas platyrhynchos</i> )	1.1km north east (Grid reference SJ 35500 64500)	8	2017
	Mandarin duck ( <i>Aix galericulata</i> )	0.9km north west (Grid reference SJ 33605 64555)	1	2016
	Merlin ( <i>Falco columbarius</i> )	1.3km south east (Grid reference 35500 63500)	1	2012
	Peregrine ( <i>Falco peregrinus</i> )	1.1km north east (Grid reference SJ 35500 64500)	1	2015
	Quail ( <i>Coturnix coturnix</i> )	0.8km south east (Grid reference 34500 63500)	1	2015
	Red kite ( <i>Milvus milvus</i> )	0.8km south east (Grid reference 34500 63500)	2	2014
	Reed bunting ( <i>Emberiza schoeniclus</i> )	0.8km west (Grid reference SJ 35235 64155)	3	2017
	Skylark ( <i>Alauda arvensis</i> )	1.0km north west (Grid reference 33500 65600)	10	2018
	Snipe ( <i>Gallinago gallinago</i> )	1.0km south east (Grid reference SJ 34950 63450)	1	2014
	Starling ( <i>Sturnus vulgaris</i> )	1.1km north east (Grid reference SJ 35500 64500)	8	2011
	Swallow ( <i>Hirundo rustica</i> )	1.0km north west (Grid reference SJ 33500 64500)	82	2015
	Swift ( <i>Apus apus</i> )	0.3km south east (Grid reference SJ 34545 64045)	9	2015
	Wheatear ( <i>Oenanthe oenanthe</i> )	1.0km north west (Grid reference SJ 33500 64500)	3	2010
	Whitethroat ( <i>Sylvia communis</i> )	1.1km north east (Grid reference SJ 35500 64500)	2	2014
	Yellowhammer ( <i>Emberiza citrinella</i> )	2.0km north west (Grid reference SJ 33050 65650)	1	2008
<b>Mammals</b>				
	Brown hare ( <i>Lepus europaeus</i> )	0.5km north west (Grid reference SJ 3399564455)	12	2017
	Eurasian badger ( <i>Meles meles</i> )	0.9km north west (Grid reference SJ 33595 64545)	7	2017

Taxon group	Species	Distance from site extent	Total number of records (<10 years old)	Most recent record
	Common Pipistrelle ( <i>Pipistrellus pipistrellus</i> )	0.5km south east (Grid reference 34950 64150)	10	2017
	European hedgehog ( <i>Erinaceus europaeus</i> )	0.7km south east (Grid reference SJ 34295 63545)	6	2017
	Noctule bat ( <i>Nyctalus noctula</i> )	0.5km south east (Grid reference SJ 34950 64150)	7	2017
	Records labelled as 'Pipistrellus bat species' ( <i>Pipistrellus sp.</i> )	0.8km north east (Grid reference SJ35250 64250)	2	2017
	Soprano pipistrelle ( <i>Pipistrellus pygmaeus</i> )	0.5km north east (Grid reference SJ 34950 64150)	7	2017
	Stoat ( <i>Mustela erminea</i> )	1.5km west (Grid reference SJ 33050 64650)	1	2012
	Water vole ( <i>Arvicola amphibius</i> )	0.7km north west (Grid reference SJ 34105 64895)	6	2017
	Records labelled as 'Whiskered/Brandt's Bat agg' ( <i>Myotis mystacinus/brandtii agg.</i> )	0.5km south east (Grid reference SJ 34950 64150)	4	2017
<b>Reptiles and amphibians</b>				
	Common frog ( <i>Rana temporaria</i> )	0.5km south (Grid reference SJ 34497 63738)	28	2018
	Common toad ( <i>Bufo bufo</i> )	0.5km south (Grid reference SJ 34497 63738)	2	2016
	Great crested newt ( <i>Triturus cristatus</i> )	0.5km south (Grid reference SJ 34497 63738)	40	2018
	Palmate newt ( <i>Lissotriton helveticus</i> )	0.5km south (Grid reference SJ 34566 63744)	8	2018
	Slow-worm ( <i>Anguis fragilis</i> )	0.8km south west (Grid reference SJ 3429 563545)	1	2011
	Smooth newt ( <i>Lissotriton vulgaris</i> )	0.5km south (Grid reference SJ 34550 63750)	66	2018
<b>Non-native invasive species</b>				
	American mink ( <i>Neovison vison</i> )	0.9km south east (Grid reference SJ 35125 63735)	1	2017
	Giant Hogweed ( <i>Heracleum mantegazzianum</i> )	0.8km south east (Grid reference 34500 63500)	4	2017

Taxon group	Species	Distance from site extent	Total number of records (<10 years old)	Most recent record
	Japanese Knotweed ( <i>Fallopia japonica</i> )	0.4km south east (Grid reference SJ 34750 64050)	1	2014
	New Zealand Pigmyweed ( <i>Crassula helmsii</i> )	0.5km south east (Grid reference SJ 34566 63744)	2	2017
	Wall Cotoneaster ( <i>Cotoneaster horizontalis</i> )	0.4km south east (Grid reference SJ 34750 64050)	2	2014
Plants				
	Bluebell ( <i>Hyacinthoides non-scripta</i> )	2.0km west (Grid reference SJ 32500 64500)	1	2014

Source: Cofnod North Wales Environmental Information Service, 2018

