



## Preliminary Ecological Appraisal and Preliminary Roost Assessment Survey

Seaview House, Moreton Common, Wirral, Merseyside CH46 4TA

John Biddle

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**Guidelines**

This assessment has been designed to meet:

- Chartered Institute of Ecology and Environmental Management 'Guidelines for Preliminary Ecological Appraisal Second Edition, December 2017';
- Chartered Institute of Ecology and Environmental Management 'Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater, Coastal and Marine, September 2018'; and
- British Standard 42020 (2013) 'Biodiversity – Code of Practice for Planning and Development'.

**Proportionality**

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

This approach is enshrined in Government planning guidance, for example, paragraph 193 of the National Planning Policy Framework for England.

The desk studies and field surveys undertaken to provide a preliminary ecological appraisal (PEA) might in some cases be all that is necessary.

(BS 42020, 2013)

In consequence of the scale and intensity of the proposed development, the low impact on ecological receptors identified through both the site survey and search of local biological records, and the passive interface with the mitigation hierarchy, this plan-led report is considered adequate and proportionate. It communicates all relevant information necessary to determine a planning application, or support the recommendations for further surveys.

## Executive summary

Arbtech Consulting Limited was commissioned by John Biddle to undertake a Preliminary Ecological Appraisal and Preliminary Roost Assessment (PRA) at Seaview House, Moreton Common, Wirral, Merseyside CH46 4TA. The survey was completed on 31/05/2019. The aim of the survey was to complete an Extended Phase 1 Habitat Survey of the survey area (all land that will be impacted by the proposals) and to search for bats/field signs of bats and to consider the value and suitability of the structures for roosting bats.

The development proposals are for the demolition of the current building and removal of one tree, with the construction of a new property. A planning application is being prepared for submission to Wirral Council.

**Recommendations - This is work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent.**

Ecological Factor	Survey assessment conclusions (with justification)	Foreseen impacts	Recommendations	Enhancements The Local Planning Authority has a duty to ask for enhancements under the NPPF (July 2018)
<b>Designated sites</b>	The site is not subject to any designation. However, the Magic database shows that the Meols Meadows and North Wirral Foreshore SSSI's are located within 2km of the site.	The proposed development is not of a sufficient scale to have an impact on any nearby designated sites.	No further surveys.	None applicable.
<b>Notable habitats and plants</b>	The Magic database shows that there are no priority habitats on site, or within the zone of influence of the proposed works. Deciduous woodland, coastal and floodplain grazing marsh and sand coasts are located within 2km of the site.	No impacts on priority habitats due to the scale of the development and the distance of the site from the priority habitats in the wider landscape.	No further surveys.	A wildflower meadow area should be incorporated into the landscaping of the developed site.
<b>Invasive / Non-native species</b>	No invasive and non-native species recorded on site.	None applicable.	No further surveys.	None applicable.
<b>Bats (B1)</b>	The existing building, B1, has <b>low</b> habitat value for supporting roosting bats, due to the minor suitable roosting features externally that could be used by low numbers of common, crevice dwelling bat species, as well as the limited	The current planning application does not include the demolition of the exiting property on site, with the new property to be built in a different area of the site. There fore there are no foreseen impacts on any roosting bats within the	No further surveys will be required in order for the proposed new development to be built. However, should the existing building need to be demolished then <b>one bat emergence/re-entry survey would be required</b> during the active bat season (May – September)	The installation of a minimum of two Schwegler bat boxes on mature trees around the site boundaries will provide additional roosting habitat for bats e.g. 2F Schwegler Bat Box 1FF Schwegler Bat Box 2FN Schwegler Bat Box.

	connectivity to foraging areas in the wider landscape.	existing building on site. Should this building be demolished in the future then, any bat roosts present would be destroyed. This could result in the death, injury or disturbance of bats.	to confirm presence/likely-absence of a bat roost in the building. The survey must be completed during the optimal survey period mid-May to August inclusive. Sub-optimal: early May and September. The survey can be either a dusk emergence or dawn re-entry survey. <b>Three surveyors</b> are required to provide full coverage of the building. If bat roosts are confirmed in the building, two additional surveys will be required to inform a European Protected Species Mitigation Licence application to Natural England (once planning permission has been granted). At least one of the additional surveys will need to be a dawn re-entry survey and must be completed during the peak survey period.	Bat boxes should be positioned 3-5m above ground level facing in a south/south-westerly direction with a clear flight path to and from the entrance. The installation of bat tubes into the new building e.g. Habitat bat box Schwegler 1FR bat tubes Bat tubes should be inserted into the fabric of the building during construction positioned at the eaves on the southern ends of the east and west elevations, so they are facing the surrounding greenery.
<b>Bats (T1)</b>	The tree to be removed during development, T1, contains no bat roosting features and therefore has a very low probability of supporting roosting bats.	No foreseen impacts.	No further surveys required.	See above.
<b>Birds</b>	Although no nests were observed at the time of the survey, the surrounding trees and vegetation provide suitable habitat for nesting birds. The biological records data shows that numerous bird records, including recent records of barn owl, curlew and kingfisher located within 2 km of the site.	Active nests constructed and utilised between the survey date and any site works taking place could be destroyed.	Works should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the buildings, trees and scrub should be undertaken immediately prior to the commencement of works. All active nests will need to be retained until the young have fledged.	Install three Schwegler bird boxes on retained trees/buildings on site e.g. Schwegler No 17 swift nest box Schwegler 1SP Sparrow Terrace Schwegler 1B nest boxes Schwegler 2H Robin Boxes Nest boxes should be positioned approximately 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight. Small-hole boxes are best placed approximately 1-3m above ground on an area of the tree trunk where foliage will not obscure the entrance hole.

				<p>Swift nest boxes/nest cups should be positioned inside a building/covered area/outbuilding with open access for birds.</p> <p>Sparrow Terraces/nest boxes should be positioned at the eaves of the new building and can be incorporated into the fabric of the building during construction.</p>
<b>Reptiles</b>	<p>The site provides a small area of reptile habitat. There are areas of overgrown vegetation which would provide suitable coverage for reptile, as well as rubble piles which could provide suitable basking spots for reptiles. The biological records data shows that there are no reptile records within a 2km radius of the site, reducing the likelihood of reptiles being present on site.</p>	<p>Any reptiles present during the works could be injured or killed.</p>	<p>Due to the small area of suitable habitat on site. To minimise the risk of killing or injuring reptiles, site clearance works will be carried out under a precautionary method of working. The development area should be kept largely clear of vegetation in order to make it unattractive to reptiles. This clearance should be to ground level and be carried out in two stages, the latest stage undertaken at least 2 days prior to topsoil removal or other works to allow any reptiles present to move away. The first cut should be at about 15cm from the ground (the current state of the site) and the second (between 1 and 3 days later) close to the ground, thereby preventing injury to reptiles during clearance. The vegetation should then be maintained at a very short level (less than 5 cm) even if there are delays in development. Likewise, compost heaps or vegetation, log or rubble piles should be moved by hand prior to commencement of any work. A buffer around the boundaries and reptiles fencing to ensure any reptiles are restricted from accessing the site during development is recommended.</p>	<p>Waste materials created during the development e.g. log piles, brash, rocks etc. Can be used to create hibernacula and refugia for common reptiles. These should be positioned on the site boundaries below the existing hedgerow which will be retained.</p>
<b>Amphibians Other Terrestrial Mammals</b>	<p>The site contains suitable terrestrial habitat for amphibian foraging, commuting, and refuge.</p>	<p>The proposed development will result in the loss of habitat for common amphibians and Great Crested Newts (GCN). Any</p>	<p>A precautionary method of working is considered adequate to reduce the small risk of harm or injury to common amphibians and Great Crested Newts (GCN) during development, all clearance</p>	<p>Waste materials created during the development e.g. log piles, brash, rocks etc. Can be used to create hibernacula and refugia for amphibians. These should be positioned on the</p>

		amphibians present during the works could be injured or killed.	of scrub will take place when the amphibians are found in their aquatic habitat and not in terrestrial habitat (core breeding season: March-May inclusive). If these timescales cannot be adhered to then the scrub clearance will need to be supervised by a licensed ecologist. This will include the clearing of any log piles and refugia that may be used by amphibians. In addition, all trenches will be backfilled before nightfall, or a ramp will be left to allow amphibians to easily exit. Any stored materials (that might act as temporary resting places) will be raised off the ground, e.g. on pallets. <ul style="list-style-type: none"> <li>• If a GCN is found during the development all work must immediately cease and a licensed ecologist contacted for advice.</li> </ul>	site boundaries below the existing hedgerow which will be retained.
<b>Badgers</b> Suitable foraging habitat for badgers found on site. The biological records data shows that there are no badgers present within a 2km radius of the site, reducing their likelihood of being present on site.	<b>Badgers</b> No impacts on any badger setts.	<b>Badgers</b> No further surveys are required. However, the following recommendations are given in order to mitigate against potential harm to badgers during the development works. <ul style="list-style-type: none"> <li>• Any trenches dug should either be covered at night or have a rough sawn plank placed in them to act as a ramp for any wildlife which may fall in.</li> <li>• Security lighting to be directed away from the undergrowth.</li> </ul> Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.	<b>Badgers</b> Planting fruit trees on the developed site will provide additional foraging resources for badgers.	
<b>Water Vole</b> There is no suitable water vole habitat on site, however there is a water course approximately 10m south of the southern site boundary.	<b>Water Vole</b> The stream/river will be retained within the developed site however there is a risk of disturbance to	<b>Water Vole</b> No further surveys.	<b>Water Vole</b> A 2-5m buffer zone along the bank of the stream/river/ditch should be maintained as rough grassland to enhance the site for water vole.	

	The biological records data shows that there are no water vole recordings within a 2km radius of the site therefore reducing the likelihood of them being present on site.	water voles during the site clearance and construction works.		Measures to avoid accidental pollution of the water course should be implemented ( <a href="http://www.hse.gov.uk/coshh/">http://www.hse.gov.uk/coshh/</a> ).
	<b>Otter</b> There is no suitable otter habitat on site, however there is a river/stream approximately 10m south of the southern site boundary. The biological records data shows that there are no otter recordings within a 2km radius of the site therefore reducing the likelihood of them being present on site.	<b>Otter</b> The water course will be retained within the developed site. However, there is a risk of disturbance to otters during the site clearance and construction works.	<b>Otter</b> • No further surveys.	<b>Otter</b> A 2-5m buffer zone along the bank of the stream/river should be maintained as rough grassland to provide refuge areas for otters. An otter holt should be constructed using waste materials from tree/vegetation removal.

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## **1.0 Introduction and Context**

### **1.1 Background**

Arbtech Consulting Limited was commissioned by John Biddle to undertake a Preliminary Ecological Appraisal and Preliminary Roost Assessment (PRA) at Seaview House, Moreton Common, Wirral, Merseyside CH46 4TA. The survey was completed on 31/05/2019. The aim of the survey was to complete an extended Phase 1 Habitat Survey of the survey area (all land that will be impacted by the proposals) and to consider the value and suitability of the structures for roosting bats. The PRA is informed by the Bat Conservation Trust publication Bat Surveys for Professional Ecologists – Good Practice Guidelines (Collins, J. (Ed) 2016).

No previous reports have been produced for this site by Arbtech Consulting Ltd.

### **1.2 Site Context**

The site is located at National Grid Reference SJ 25374 91247 and has an area of approximately 0.4ha. The site consists of one building, surrounded by an open area of grass with several uninhabitable caravan structures, mature trees, and hedgerows forming the site boundary.

### **1.3 Scope of the report**

This report describes the baseline ecological conditions at the site; evaluates habitats within the survey area in the context of the wider environment; and describes the suitability of those habitats for notable or protected species. The PRA element of the survey the report provides a description of all features suitable for roosting bats, and evaluates those features in the context of the site and wider environment. It further documents any physical evidence collected or recorded during the site survey that establishes the presence of roosting bats. It identifies significant ecological impacts as a result of the development proposals; summarises the requirements for further surveys and mitigation measures, to inform subsequent mitigation proposals, achieve Planning or other statutory consent, and to comply with wildlife legislation.

To achieve this, the following steps were taken:

- The desk study area and field survey area (generally 50m from the site boundary/proposed footprint and including the 'zone of influence' of the scheme) have been identified
- A desk study has been carried out.
- Baseline information on the site and surrounding area has been recorded through an 'Extended Phase 1 Habitat Survey', including a Phase 1 Habitat Survey (JNCC 2010) and recording further details in relation to notable or protected habitats and species.
- The ecological features present within the survey area have been evaluated where possible (CIEEM, December 2017).
- Invasive plant and animal species (such as those listed on Schedule 9 of the Wildlife & Countryside Act) have been identified.
- Likely impacts on features of value, as a result of the development proposals, have been identified.
- Recommendations for further survey and assessment have been made
- Recommendations for mitigation and enhancements of the developed site have been provided based on current information.

A survey plan is presented in Appendix 1, proposed plans in Appendix 2 (where available), desk study results in Appendix 3 and a summary of relevant legislation is presented in Appendix 4.

#### **1.4 Project Description**

The development proposals are for the demolition of the current building and removal of one tree, with the construction of a new property. A planning application is being prepared for submission to Wirral Council.

## **2.0 Methodology**

### **2.1 Desk Study methodology**

The desk study included a 2km radius review of statutory and non-statutory designated sites, Biodiversity Action Plan (BAP) Priority Habitats and granted EPSML records for bats held on Magic database. An assessment of the surrounding landscape structure was also completed using aerial images from Google Earth and OS maps.

To conform to best practice guidelines biological records data (BRD) within a 2km radius of the site has been obtained from the local biological records RECORD - Biodiversity Information Centre for Cheshire, Halton, Warrington & Wirral, The data search is confidential information that is not suitable for public release and has been analysed and summarised for presentation in this report.

### **2.2 Site Survey methodology**

The survey was undertaken by Mel Reid (accredited agent to Natural England Bat Licence Number: 2016-22119-CLS-CLS from 15/09/2018) on 31/05/2019.

The methodology for the Phase 1 habitat survey is based on the best practice publication Phase 1 Habitat Survey Methodology (JNCC, 2010). All land parcels are described and mapped according to JNCC Phase 1 Habitat Classification. Where appropriate, target notes provide supplementary information on habitat conditions, features too small to map to scale, species composition, structure and management.

During the survey, habitats were assessed for their suitability to support protected species, and field signs indicating their presence recorded. The assessment takes into consideration the findings of the desk study, the habitat conditions on site and in the context of the surrounding landscape, and the ecology of the protected species. The likelihood of the presence of protected species is ranked; the habitats on site are evaluated against their likelihood to provide suitable habitat for protected species.

The ecological value of the survey area has been assessed based on the Guidelines for Ecological Impact Assessment (CIEEM, 2018), and the Handbook of Biodiversity Methods: Survey, Evaluation and Monitoring (Hill, 2005), using geographic frames of reference. The biodiversity value of any identified designated sites, habitat types and associated species assemblages has been considered. The distribution and extent of invasive species listed on Schedule 9 of the Wildlife and Countryside Act (1981 as amended 1996) were also noted throughout the survey area. The methodology for the PRA is informed by the Bat Conservation Trust publication Bat Surveys for Professional Ecologists – Good Practice Guidelines (Collins, J. (Ed) 2016). All features that will be impacted by the project proposals were assessed for their bat roosting and/or commuting habitat. The surveyor systematically surveyed all features suitable for-bats and signs of bat activity.

For any surveyed buildings:

A non-intrusive visual appraisal from the ground using binoculars, inspecting the external features of the building(s) for potential access/egress points, and for signs of bat use. An internal inspection of the building was also made, including the living areas of derelict or abandoned buildings and the accessible roof spaces of all buildings, using an endoscope, torch and ladders. The surveyor paid particular attention to the floor and flat surfaces, window shutters and frames, lintels above doors and windows, and carried out a detailed search of numerous features within the roof space.

#### For any surveyed trees

A visual inspection from ground level using binoculars and where accessible an internal inspection of suitable roosting features using an endoscope, torch and ladders.

The surveyor also made note of any other ecological constraints observed during the survey, notably the likelihood of presence or signs of breeding birds, and the suitability of the site for barn owls *Tyto alba*.

### **2.3 Suitability Assessment**

The likelihood of occurrence of protected species is ranked according to the criteria listed in Table 1. The habitats on site were evaluated as to their likelihood to provide sheltering, roosting, foraging, basking or nesting habitat.

*Table 1: showing criteria considered when assessing the likelihood of occurrence of protected species*

<b>Present</b>	<b>Species are confirmed as present from the current survey or historical confirmed records.</b>
High	Habitat and features of high quality for species/species assemblage. Species known to be present in wider landscape (desk study records). Good quality surrounding habitat and good connectivity.
Medium	Habitat and features of moderate quality. The site in combination with surrounding land provides all habitat/ecological conditions required by the species/assemblage. Within known national distribution of species and local records in desk study area. Limiting factors to suitability, including small area of suitable habitat, some severance/poor connectivity with wider landscape, poor to moderate habitat suitability in local area.
Low	Habitats within the survey area poor quality. Few or no records from data search. Despite above, presence cannot be discounted as within national range, all required features/conditions present on site and in surrounding landscape. Limiting factors could include isolation, poor quality landscape, or disturbance.
Negligible	Very limited poor quality habitats and features. No local records from desk study; site on edge of, or outside, national range. Surrounding habitats considered unlikely to support species/species assemblage.

For the PRA element of the survey all affected survey features on site were categorised according to the likelihood of bats being present, in line with best practice guidelines (Collins, J. (ed) 2016). The features that dictate the likelihood of roosting bats are summarised in Tables 2 and 3 below. Roost suitability is classified as high, moderate, low and negligible and dictates any further surveys required before works can proceed.

Table 2: Features of a building that are correlated with use by bats

Likelihood of bats being present	Feature of building and its context
Higher	Buildings/structures with features of particular significance for roosting bats e.g. mines, caves, tunnels, icehouses and cellars. Habitat on site and surrounding landscape of high quality for foraging bats e.g. broadleaved woodland, tree-lined watercourses and grazed parkland. Site is connected with the wider landscape by strong linear features that would be used by commuting bats e.g. river and or stream valleys and hedgerows. Site is proximate to known or likely roosts (based on historical data).
Lower	A small number of possible roost sites/features, used sporadically by more widespread species. Habitat suitable for foraging in close proximity, but isolated in the landscape. Or an isolated site not connected by prominent linear features. Few features suitable for roosting, minor foraging or commuting.

Table 3: Features of a tree that are correlated with use by bats

Likelihood of bats being present	Feature of tree and its context
Higher	A 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.
Lower	A tree of sufficient size and age to contain potential roosting features but with none seen from the ground or features seen with only very limited roosting potential.

#### 2.4 Limitations – evaluation of the methodology

It should be noted that whilst every effort has been made to describe the baseline conditions within the survey area, and evaluate these features, this report does not provide a complete characterisation of the site. This assessment provides a preliminary view of the likelihood of protected species being present. This is based on suitability of the habitats on the site and in the wider landscape, the ecology and biology of species as currently understood, and the known distribution of species as recovered during the searches of historical biological records.

Specific limitations to the PRA element of the survey were a lack of access to the loft space at the rear of B1 due a lack of access to the loft hatch. The loft hatch was position in a room currently being used as a store and no safe way to set up a ladder could be found.

These limitations have been taken into account during the evaluation of the site and requirement for further surveys.

### 3.0 Results and Evaluation

#### 3.1 Desk Study Results

A summary of desk study results are provided below; full details are included in Appendix 3.

#### 3.2 Designated sites

Details of any statutory and non-statutory designated sites within a 2km radius of the survey site, including their reasons for notification, are provided in Table 4 below.

Table 4: Designated sites within 2km radius of the site

Designated Site Name	Distance from Site (approx.)	Reasons for Notification from Natural England and/or BRD or LPA policy maps
<b>Statutory Sites</b>		
Mersey Narrows & North Wirral Foreshore Ramsar Site	250m north	<p>The site qualifies under Criterion 4 because it regularly supports plant and/or animal species at a critical stage in their life cycles, or provides refuge during adverse conditions: During 2004/05 - 2008/09 the Mersey Narrows and North Wirral Foreshore Ramsar site supported important numbers of non-breeding little gulls and common terns.</p> <p>The site qualifies under Criterion 5 because it regularly supports 20,000 or more waterbirds: During the winters 2004/05 - 2008/09, the Mersey Narrows and North Wirral Foreshore Ramsar site supported an average peak of 32,402 individual waterbirds.</p> <p>The site qualifies under Criterion 6 because it regularly supports 1% of the individuals in the populations of the following species or subspecies of waterbird in any season: During the winters 2004/05 - 2008/09, the Mersey Narrows and North Wirral Foreshore Ramsar site supported 2.4% of the <i>islandica</i> subspecies, W Europe/Waddensea/Britain/Ireland (non-breeding) population of knot and 2.8% of the <i>lapponica</i> subspecies W Europe/NW Africa (non-breeding) population of bar-tailed godwits.</p>
North Wirral Foreshore Sites of Special Scientific Interest (SSSI)	250m north	North Wirral Foreshore is located between the outer Dee and Mersey Estuaries. This site is an area of intertidal sand and mudflats and embryonic saltmarsh which is of considerable importance as a feeding and roosting site for passage and wintering flocks of waders, wildfowl, terns and gulls.
Dee Estuary Special Areas of Conservation (SAC)	250m north	The Dee Estuary/Aber Dyfrdwy Special Area of Conservation (SAC) is a multiple interest site. For the qualifying marine habitats and species, the SAC is considered to be one of the best areas in the UK for: Mudflats and sandflats not covered by seawater at low tide (intertidal mudflats and sandflats), Salicornia and other annuals colonising mud and sand, and Atlantic salt meadows. And to support a significant presence of: Estuaries, River lamprey <i>Lampetra fluviatilis</i> , Sea lamprey <i>Petromyzon marinus</i> .
Meols Meadows SSSI	1km south-west	The main habitat is damp unimproved neutral grassland, the level fields being separated by ditches containing tall fen vegetation. This site is the best example of the crested dog's-tail-common knapweed type of grassland known in Greater Manchester and Merseyside. It is characterised by the dominant grasses red fescue/common bent/sweet vernal-grass <i>Festuca rubra/Agrostis capillaris/Anthoxanthum odoratum</i> and the occurrence of betony <i>Stachys officinalis</i> , cowslip <i>Primula veris</i> , pepper saxifrage <i>Silvaum silaus</i> , green-winged orchid <i>Orchis morio</i> and dyer's greenweed <i>Genista tinctorial</i> . Several of the species present are rare in Merseyside, these being greater pond sedge, meadow barley, green-winged orchid, cowslip and pepper saxifrage. Other species of restricted occurrence in Merseyside include quaking grass, yellow oat-grass, meadow cranesbill, dyer's greenweed and adder's-tongue <i>Ophioglossum vulgatum</i> . A large colony of the chimney sweeper moth <i>Odezia atrata</i> present reflects the abundance of its larval food plant, pignut. A locally rare saltmarsh money spider <i>Minirialoides trifons</i> also occurs.

Designated Site Name	Distance from Site (approx.)	Reasons for Notification from Natural England and/or BRD or LPA policy maps
<b>Non-statutory Sites</b>		
None known		

### 3.3 Landscape

A review of the designated sites, aerial photographs (Figure 1), the Magic database and OS maps has been undertaken. Collated together, the site's local habitat is described below:

The site is situated in a coastal area of the Wirral, north of the village of Moreton and west of the village of Leasowe. The landscape is dominated by arable fields to the south, and sandy coasts to the north. The wider landscape is dominated by the residential dwellings of Moreton and Leasowe, with gardens. The waterway, The Birket, is directly adjacent to the southern site boundary. This could provide suitable foraging habitat for a number of protected species, as well as a good commuting route providing good connectivity to the wider landscape. There are a number of large water bodies in the landscape, including two lakes approximately 150m southwest of the site, at the Lingmere Fishery. This could provide good foraging habitat for bats and other protected species on site. Priority habitats within 2km of the site are listed in Table 5.

Table 5: Priority Habitat Inventory within 2km (Magic.gov.uk):

Habitat	Closest distance from site
Coastal And Floodplain Grazing Marsh	Adjacent to site
National Forest Inventory	~600m south-east
Deciduous Woodland	~600m south-east
Intertidal Substrate Foreshore (Sand and Future Coast)	~250m north



Figure 1: Aerial photo of site, showing landscape structure

### 3.4 Historical records

RECORD - Biodiversity Information Centre for Cheshire, Halton, Warrington & Wirral has provided bat records within a 2km radius of the site. These have been requested and will be analysed and summarised in Table 6.

Table 6: Historical records\* within 2km of the site

Taxon Group	Common name	Scientific binomial	Record details
<b>Bats</b>	Common Pipistrelle	<i>Pipistrellus pipistrellus</i>	2 records from the same site. No roost records.
<b>Birds</b>	Arctic Skua	<i>Stercorarius parasiticus</i>	19 records from 2 different sites
	Barn Owl	<i>Tyto alba</i>	44 records from 11 different sites
	Black Redstart	<i>Phoenicurus ochruros</i>	8 records from 2 different sites
	Black-tailed Godwit	<i>Limosa limosa</i>	2 records from 2 different sites
	Brambling	<i>Fringilla montifringilla</i>	3 records from 2 different sites
	Cuckoo	<i>Cuculus canorus</i>	25 records from 4 different sites
	Curlew	<i>Numenius arquata</i>	17 records from 11 sites
	Fieldfare	<i>Turdus pilaris</i>	22 records from 1 sites
	Firecrest	<i>Regulus ignicapilla</i>	5 records from 1 site
	Goldeneye	<i>Bucephala clangula</i>	4 records from 2 sites
	Grasshopper Warbler	<i>Locustella naevia</i>	51 records from 2 sites
	Green Sandpiper	<i>Tringa ochropus</i>	3 records from 3 different sites
	Greenshank	<i>Tringa nebularia</i>	123 records from 6 different sites
	Hobby	<i>Falco subbuteo</i>	12 records from 5 different sites
	Kingfisher	<i>Alcedo atthis</i>	23 records from 4 different sites
	Lapland Bunting	<i>Calcarius lapponicus</i>	4 records from 2 different sites
	Little Bittern	<i>Ixobrychus minutus</i>	1 record
	Little Ringed Plover	<i>Charadrius dubius</i>	2 records from the same site
	Little Tern	<i>Sternula albifrons</i>	3 records from 2 different sites
	Long-tailed Duck	<i>Clangula hyemalis</i>	1 record
	Merlin	<i>Falco columbarius</i>	9 records from the same site
	Osprey	<i>Pandion haliaetus</i>	9 records from the same site
	Peregrine	<i>Falco peregrinus</i>	46 records from 2 different sites
	Pintail	<i>Anas acuta</i>	1 record
	Purple Sandpiper	<i>Calidris maritima</i>	1 record
	Red Kite	<i>Milvus milvus</i>	5 records from 2 different sites
	Redwing	<i>Turdus iliacus</i>	16 records from the same site
	Ring Ouzel	<i>Turdus torquatus</i>	30 records from 7 different sites
	Scaup	<i>Aythya marila</i>	35 records from 3 different sites
	Snow Bunting	<i>Plectrophenax nivalis</i>	6 records from 2 different sites
	Spoonbill	<i>Platalea leucorodia</i>	3 records from 2 different sites
	Spotted Crake	<i>Porzana porzana</i>	2 records from he same site



	Tree Pipit	<i>Anthus trivialis</i>	14 records from 5 different sites
	Velvet Scoter	<i>Melanitta fusca</i>	2 records from the same site
	Whimbrel	<i>Numenius phaeopus</i>	35 records from 2 different sites
	Wood Warbler	<i>Phylloscopus sibilatrix</i>	1 record
	Wryneck	<i>Jynx torquilla</i>	2 records from the same site
<b>Amphibians</b>	Common Frog	<i>Rana temporaria</i>	7 records from 5 different sites
	Common Toad	<i>Bufo bufo</i>	4 records from 4 different sites
<b>Other Terrestrial Mammals</b>	European Mole	<i>Talpa europaea</i>	7 records from 4 different sites
	West European Hedgehog	<i>Erinaceus europaeus</i>	1 record
	Red Fox	<i>Vulpes vulpes</i>	4 records from 3 different sites
	Stoat	<i>Mustela erminea</i>	1 record
	Eurasian Common Shrew	<i>Sorex araneus</i>	2 records from 2 different sites
	European Rabbit	<i>Oryctolagus cuniculus</i>	2 records from 2 different sites
	Bank Vole	<i>Myodes glareolus</i>	1 record
<b>Invertebrates</b>	Grayling Butterfly	<i>Hipparchia semele</i>	2 records from the same site
	Small Heath Butterfly	<i>Coenonympha pamphilus</i>	4 records from 2 different sites
	Cinnabar Moth	<i>Tyria jacobaeae</i>	4 records from 3 different sites
	Common Darter Dragonfly	<i>Sympetrum striolatum</i>	1 record
	Blue-tailed Damselfly	<i>Ischnura elegans</i>	1 record
	Migrant Hawker Dragonfly	<i>Aeshna mixta</i>	1 record

\*Records from the past 10 years

A search of the Magic database for granted European Protected Species Mitigation Licences (EPSMLs) within a 1km radius of the site has been completed. Displaced protected species from Licenced sites >1km away from the survey site will find alternative habitat either within the mitigation measures implemented as part of the Licence, or will relocate to other suitable habitat in close proximity to the Licenced site. The EPSML records shows that there are two locations within a 2km radius where there has been destruction of a resting place for great crested newts, therefore displaced newts from these locations could find suitable terrestrial habitat on site.

Table 7: Granted EPSMLs within 1km of the site

Case reference of granted application	Approx. distance from site	Species Effected	Licence Start Date:	Licence End Date:	Impacts allowed by licence
EPSM2013-5987	700m west	GCN	06/08/2013	31/10/2015	Destruction of a resting place
2014-765-EPS-MIT	1000m south east	GCN	09/05/2014	30/09/2014	Destruction of a resting place
2014-765-EPS-MIT-1			18/09/2014	30/11/2014	Destruction of a resting place
2014-765-EPS-MIT-3			09/04/2015	30/04/2016	Destruction of a resting place
2014-765-EPS-MIT-4			13/05/2016	30/06/2016	Destruction of a resting place
EPSM2013-5913	1000m south west	GCN	28/06/2013	30/09/2014	Destruction of a resting place
2014-765-EPS-MIT-2			15/10/2014	30/04/2015	Destruction of a resting place

### 3.5 Field Survey Results

The site consists of one building, surrounded by an open area of grass, with several uninhabitable caravan structures, with mature trees and hedgerows forming the site boundary, and is illustrated in the map in Appendix 1. The weather conditions recorded at the time of the survey are shown in Table 7. The building has been designated as B1. There is one tree to be removed during the developments, which has been designated T1.

Table 7: Weather conditions during the survey

Date: 31/05/2019	
Temperature	17°C
Relative Humidity	76%
Cloud Cover	91%
Wind	10mph
Rain	None

### 3.6 Site Feature descriptions and photos

Area of grass at the centre of the site, facing west (pictured opposite).

#### J1.2 Amenity grassland

Most of the site consists of areas of amenity grassland. There are scattered trees, with areas of bare ground at the south end of the site, and areas of scrub at the northern and eastern site boundary. There are areas of concrete hard standing, which are previous caravan plots (see Appendix 1 – Survey Plan). There are several disused caravans, and one in-use caravan still on site. These caravans are to be removed during development.

The dominant species of the amenity grassland include perennial ryegrass *Lolium perenne*, false oat-grass *Arrhenatherum elatius* with dandelion *Taraxacum officinale*, daisy *Bellis perennis* and buttercup *Ranunculus sp.* in places.



Area of grassland at centre of site, facing north (pictured opposite).

The photo opposite shows an area of amenity grassland which has become overgrown. The applicant states the area is regularly mown.



Northeast section of hard standing driveway, facing southwest (pictured opposite).

### **Hard Standing**

There are a number of sections of hard standing concrete across the site, including a driveway starting at the northwest corner of the site stretching down towards the south end of the site, with a path down the western site boundary and the centre of the site. There are also a number of rectangle-shaped concrete hard standing areas across the site which were previously caravan plots.



Section of hard standing north of B1, facing north (pictured opposite).

The photo opposite shows an area of concrete hard standing, which was previously a caravan plot. This area of hard standing is where the new development will be constructed.



Section of driveway long the western site boundary, facing north (pictured opposite).

The photo opposite shows the concrete driveway along the western site boundary, which runs from the northwest corner of the site to B1.



**A2 Scrub**

There are areas of scrub across the site, including along the northern site boundary, along the eastern edge of the driveway along the western site boundary, and to the south of B1, surrounding the shed-style buildings at the rear. The dominant species are bramble *Rubus fruticosus*, common nettle *Urtica dioica*, cleavers *Galium aparine* and Ivy *Hedera helix*.

**A1.3 Scattered trees**

Scattered trees are present around the southern and eastern elevations of B1.



The photo opposite shows the trees on the eastern elevation of B1. One of these trees (red arrow) is to be removed during the developments, designated as T1. There were no potential bat roosting features observed on T1, meaning there is a very low probability that bats will use this tree for roosting. There were no nesting birds or old birds nests recorded in T1 during the survey.



#### J4 Bare Ground

There is an area of bare ground at the southern end of the site surrounded by patches of grass.



### J3.6 Buildings

#### B1 Exterior

B1 – northern and eastern elevations (pictured opposite).

B1 is a detached two-storey brick-built building with a pitched roof clad in concrete roof tiles. The walls have a concrete and pebble rendering, which is in good condition with no gaps or cracks suitable for crevice dwelling bat species, such as common pipistrelles *Pipistrellus pipistrellus*. The roof tiles are raised in places creating suitable bat roost sites for crevice dwelling bat species,. The soffit boxes at the eaves are wooden and are in excellent condition with no gaps. There is a single-storey section on the northern elevation of the building, clad in slate roof tiles, which are in very good condition with no gaps.

B1 – eastern elevation (pictured opposite).

The concrete rendering on this elevation of B1 has fallen away in areas. There are no gaps in the mortar along the roof verge which could allow access for bats in the loft space or cavity walls.



B1 – southern elevation (pictured opposite).

There are two single-storey sections on this elevation of B1, which have slate roof tiles, which are in good condition with no gaps or cracks suitable for crevice dwellings bats. There are gaps along the roof verges of these single-storey sections where the wooden eave has fallen away. These gaps could provide suitable space for roosting bats.



B1 – western elevation (pictured opposite).

There are two gable ends on the western elevation of B1, each with a chimney.





B1 – Northern elevation (picture opposite).

The photo opposite shows a close-up of the roof structure on the northern elevation of B1. There are a number of gaps in the roof tiles (circled in red) that could be used by crevice dwelling bats, such as common pipistrelles, to roost under.



B1 – Southern elevation (pictured opposite).

The photo opposite shows a close-up photo of the roof structure on the southern elevation of B1. There are a number of gaps in the roof tile (circled in red) which could provide suitable roosting space for crevice dwelling bats such as common pipistrelles. There are also gaps under the ridge tiles (circled in blue) that could provide suitable roosting space for bats.



**B1 Interior**

B1 – loft space 1, facing east (pictured opposite).

There are two loft spaces within B1, located in the northern and southern roof pitches. The photo opposite shows the loft space in the northern roof pitch.

The loft space is built from modern timber beams including the ridge beam. The roof is bitumen felt lined, which is generally in good condition. The floor of the loft is lined with mineral wool insulation throughout. There are cobwebs around the ridge beam including floor to ceiling cobwebs indicating a lack of internal flying activity from void dwelling bats, such as brown long-eared bats *Plecotus auritus*. There is no light entering the loft space indicating a lack of access points for bats.



B1 – loft space 1, facing west (pictured opposite).

There are cobwebs in the tear in the bitumen felt indicating a lack of recent disturbance therefore bats are unlikely to be accessing the loft space via the tear. There is insulation along the gable end roof verge, meaning there are no gaps suitable for bats.

Approximate internal dimensions: 8.5m long x 5m wide x 1.5m high (floor to ridge height).



**B1 – Loft Space 2**

The second loft space is located in the southern roof pitch running the whole length of B1 from east to west. The loft space was inaccessible due to the loft hatch being located above a full storeroom, and therefore could not be entered safely. The loft space is built from modern timber beams including the ridge beam. The roof is bitumen felt lined, which is generally in good condition. The floor of the loft is lined with mineral wool insulation throughout. There are cobwebs around the ridge beam including floor to ceiling cobwebs indicating a lack of internal flying activity. There is no light entering the loft space.

Approximate internal dimensions: 12m long x 5m wide x 1.5m high (floor to ridge height).

***B1 Evidence of bats***

There was no evidence of bat activity located internally in B1. Although bat droppings on the exterior of buildings can be easily weathered away and is rarely visible, no evidence was observed externally on any of the features suitable for roosting.

***B1 Breeding birds and other incidental observations***

There was no evidence of nesting birds located internally or externally on the survey building.

**B2 Exterior**

B2 eastern elevation, northern end (pictured opposite).

B2 is a concrete and wooden built structure, with a corrugated metal roof. The northern end of the building (pictured opposite) is used as a garage and southern end (pictured below) is used as a wood store. This building is not being removed during the development, but will be renovated, including the walls and roof. There are no features suitable for roosting bats within B2 due to the material used in the construction. The corrugated metal roof does not provide any suitable gaps for roosting bats.



B2 eastern elevation, southern end (pictured opposite).

The structure at the southern end is constructed from wood, with a metal wiring and corrugated metal roof. This section of B2 is used as a wood store. There are no potential roosting features on B2 which could be used by bats and therefore the building has a negligible potential for bats.

#### ***B2 Evidence of bats***

There was no evidence of bat activity located internally in B1. Although bat droppings on the exterior of buildings can be easily weathered away and is rarely visible, no evidence was observed externally on any of the features suitable for roosting.

#### ***B2 Breeding birds and other incidental observations***

There was no evidence of nesting birds located internally or externally on the survey building.

#### **B3 Exterior**

B3 southern and western elevation (pictured opposite).

B3 is a concrete constructed building with a corrugated metal roof. There is a timber roof verge around the whole building. There are no potential bat roosting features on B3.



B3 northern elevation (pictured opposite).

The picture opposite shows the northern elevation of B3. There are no potential bat roosting features on this elevation of B3.



B3 southern elevation (pictured opposite).

There is a door and window on this elevation of B3. These are wooden framed and are in good condition with no gaps or cracks suitable for roosting bats.

### ***B3 Evidence of bats***

There was no evidence of bat activity located internally in B1. Although bat droppings on the exterior of buildings can be easily weathered away and is rarely visible, no evidence was observed externally on any of the features suitable for roosting.

### ***B3 Breeding birds and other incidental observations***

There was no evidence of nesting birds located internally or externally on the survey building.



**B4 Exterior**

B4 northern and western elevation (pictured opposite).

B4 is a metal and wooden constructed structure with a corrugated metal roof. There is ivy growing over a large section of B4. There are no potential bat roosting features on this structure due to the materials used in its construction. This building is not being affected during the proposed development.



B4 eastern elevation (pictured opposite).

The eastern end of B4 is constructed from timber boards, meaning there are no potential bat roosting features.



B4 northern elevation (pictured opposite).

The northern end of B4 is open. There are no potential bat roosting features on B4 meaning it has a negligible potential for roosting bats.

#### ***B4 Evidence of bats***

There was no evidence of bat activity located internally in B1. Although bat droppings on the exterior of buildings can be easily weathered away and is rarely visible, no evidence was observed externally on any of the features suitable for roosting.

#### ***B4 Breeding birds and other incidental observations***

There was no evidence of nesting birds located internally or externally on the survey building.



### ***3.7 Protected species evidence***

There was no evidence of protected species observed on site during the survey.

## 4.0 Conclusions, Impacts and Recommendations

### 4.1 Informative guidelines

#### Likelihood of the presence of protected species

Where physical evidence of the presence of protected species is indeterminate during the survey, the habitats on site are evaluated as to their likelihood to provide sheltering, roosting, foraging, basking or nesting habitat. The likelihood of occupancy of protected species is ranked according to the criteria listed in Table 1.

Where this report supports a planning application, the ecological interest of the study area (including the survey area) and the proposed development has also been evaluated in terms of the planning policies relating to biodiversity. It is clearly stated where a preliminary value can be given and where further information is required.

#### Likelihood of the presence of bats

There are three possible outcomes of the PRA element of the survey, each with specific recommendations. These are outlined below:

##### ***Confirmed bat roost***

Best practice survey guidelines (Collins, 2016) recommends additional surveys for confirmed roosts. Three further surveys are required to characterise the bat roost present including species, roost type and access points to inform a European Protected Species Mitigation Licence (EPSML) application with Natural England. Surveys must be completed during the active bat season (May – September). At least two of the surveys should be completed during the optimal survey period mid-May to August, and at least one of the surveys should be a dawn re-entry survey (Collins, J. 2016).

##### ***Low, moderate or high likelihood of a bat roost present***

Best practice survey guidelines (Collins, 2016) recommends additional surveys for features assessed as having low to high suitability for roosting bats. One, two or three further surveys are required to confirm presence/likely-absence of a bat roost, based on a low, medium or high roost likelihood evaluation. Surveys must be completed during the active bat season (May – September). If more than one survey is recommended, at least one of them should be completed during the optimal survey period mid-May to August, and at least one of the surveys should be a dawn re-entry survey (Collins, J. 2016). If two or one further survey is recommended these surveys must be completed during the optimal survey period (mid-May to August). For low and moderate roost likelihood evaluation the survey effort recommended at this stage is iterative and if bats roosts are confirmed in the building, a further survey will be required to provide sufficient information to inform an EPSML application to Natural England.

##### ***Negligible likelihood of a bat roost present***

Buildings assessed as comprising negligible suitability for roosting bats do not normally require further surveys. However, if bats are found during any stage of the development, work should stop immediately and a suitably qualified ecologist should be contacted for further advice.

Appropriate justification for this assessment is provided in Section 2.3 of this report.



#### 4.2 Evaluation

Taking the desk study and site survey results into account, the following conclusions for ecological factors has been reached.

Table 7: Evaluation of site

Ecological Factor	Survey assessment conclusions (with justification)	Foreseen impacts	Recommendations	Enhancements The Local Planning Authority has a duty to ask for enhancements under the NPPF (July 2018)
<b>Designated sites</b>	The site is not subject to any designation. However, the Magic database shows that the Meols Meadows and North Wirral Foreshore SSSI's are located within 2km of the site.	The proposed development is not of a sufficient scale to have an impact on any nearby designated sites.	No further surveys.	None applicable.
<b>Notable habitats and plants</b>	The Magic database shows that there are no priority habitats on site, or within the zone of influence of the proposed works. Deciduous woodland, coastal and floodplain grazing marsh and sand coasts are located within 2km of the site.	No impacts on priority habitats due to the scale of the development and the distance of the site from the priority habitats in the wider landscape.	No further surveys.	A wildflower meadow area should be incorporated into the landscaping of the developed site.
<b>Invasive / Non-native species</b>	No invasive and non-native species recorded on site.	None applicable.	No further surveys.	None applicable.
<b>Bats (B1)</b>	The existing building, B1, has <b>low</b> habitat value for supporting roosting bats, due to the minor suitable roosting features externally that could be used by low numbers of common, crevice dwelling bat species, as well as the limited connectivity to foraging areas in the wider landscape.	The current planning application does not include the demolition of the exiting property on site, with the new property to be built in a different area of the site. Therefore there are no foreseen impacts on any roosting bats within the existing building on site. Should this building be demolished in the future then, any bat roosts present would be destroyed. This could result in the death, injury or disturbance of bats.	No further surveys will be required in order for the proposed new development to be built. However, should the existing building need to be demolished then <b>one bat emergence/re-entry survey would be required</b> during the active bat season (May – September) to confirm presence/likely-absence of a bat roost in the building. The survey must be completed during the optimal survey period mid-May to August inclusive. Sub-optimal: early May and September. The survey can be either a dusk emergence or dawn re-entry survey.	The installation of a minimum of two Schwegler bat boxes on mature trees around the site boundaries will provide additional roosting habitat for bats e.g. 2F Schwegler Bat Box 1FF Schwegler Bat Box 2FN Schwegler Bat Box. Bat boxes should be positioned 3-5m above ground level facing in a south/south-westerly direction with a clear flight path to and from the entrance. The installation of bat tubes into the new building e.g. Habibat bat box Schwegler 1FR bat tubes

			<p><b>Three surveyors</b> are required to provide full coverage of the building. If bat roosts are confirmed in the building, two additional surveys will be required to inform a European Protected Species Mitigation Licence application to Natural England (once planning permission has been granted). At least one of the additional surveys will need to be a dawn re-entry survey and must be completed during the peak survey period.</p>	<p>Bat tubes should be inserted into the fabric of the building during construction positioned at the eaves on the southern ends of the east and west elevations, so they are facing the surrounding greenery.</p>
<b>Bats (T1)</b>	<p>The tree to be removed during development, T1, contains no bat roosting features and therefore has a very low probability of supporting roosting bats.</p>	<p>No foreseen impacts.</p>	<p>No further surveys required.</p>	<p>See above.</p>
<b>Birds</b>	<p>Although no nests were observed at the time of the survey, the surrounding trees and vegetation provide suitable habitat for nesting birds. The biological records data shows that numerous bird records, including recent records of barn owl, curlew and kingfisher located within 2 km of the site.</p>	<p>Active nests constructed and utilised between the survey date and any site works taking place could be destroyed.</p>	<p>Works should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the buildings, trees and scrub should be undertaken immediately prior to the commencement of works. All active nests will need to be retained until the young have fledged.</p>	<p>Install three Schwegler bird boxes on retained trees/buildings on site e.g. Schwegler No 17 swift nest box Schwegler 1SP Sparrow Terrace Schwegler 1B nest boxes Schwegler 2H Robin Boxes Nest boxes should be positioned approximately 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight. Small-hole boxes are best placed approximately 1-3m above ground on an area of the tree trunk where foliage will not obscure the entrance hole.</p> <p>Swift nest boxes/nest cups should be positioned inside a building/covered area/outbuilding with open access for birds. Sparrow Terraces/nest boxes should be positioned at the eaves of the new building and can be incorporated into the fabric of the building during construction.</p>

<b>Reptiles</b>	The site provides a small area of reptile habitat. There are areas of overgrown vegetation which would provide suitable coverage for reptile, as well as rubble piles which could provide suitable basking spots for reptiles. The biological records data shows that there are no reptile records within a 2km radius of the site, reducing the likelihood of reptiles being present on site.	Any reptiles present during the works could be injured or killed.	Due to the small area of suitable habitat on site. To minimise the risk of killing or injuring reptiles, site clearance works will be carried out under a precautionary method of working. The development area should be kept largely clear of vegetation in order to make it unattractive to reptiles. This clearance should be to ground level and be carried out in two stages, the latest stage undertaken at least 2 days prior to topsoil removal or other works to allow any reptiles present to move away. The first cut should be at about 15cm from the ground (the current state of the site) and the second (between 1 and 3 days later) close to the ground, thereby preventing injury to reptiles during clearance. The vegetation should then be maintained at a very short level (less than 5 cm) even if there are delays in development. Likewise, compost heaps or vegetation, log or rubble piles should be moved by hand prior to commencement of any work. A buffer around the boundaries and reptiles fencing to ensure any reptiles are restricted from accessing the site during development is recommended.	Waste materials created during the development e.g. log piles, brash, rocks etc. Can be used to create hibernacula and refugia for common reptiles. These should be positioned on the site boundaries below the existing hedgerow which will be retained.
<b>Amphibians</b>	The site contains suitable terrestrial habitat for amphibian foraging, commuting, and refuge.	The proposed development will result in the loss of habitat for common amphibians and Great Crested Newts (GCN). Any amphibians present during the works could be injured or killed.	A precautionary method of working is considered adequate to reduce the small risk of harm or injury to common amphibians and Great Crested Newts (GCN) during development, all clearance of scrub will take place when the amphibians are found in their aquatic habitat and not in terrestrial habitat (core breeding season: March-May inclusive). If these timescales cannot be adhered to then the scrub clearance will need to be supervised by a licensed	Waste materials created during the development e.g. log piles, brash, rocks etc. Can be used to create hibernacula and refugia for amphibians. These should be positioned on the site boundaries below the existing hedgerow which will be retained.

			<p>ecologist. This will include the clearing of any log piles and refugia that may be used by amphibians. In addition, all trenches will be backfilled before nightfall, or a ramp will be left to allow amphibians to easily exit. Any stored materials (that might act as temporary resting places) will be raised off the ground, e.g. on pallets.</p> <p>If a GCN is found during the development all work must immediately cease and a licensed ecologist contacted for advice.</p>	
<b>Other Terrestrial Mammals</b>	<p><b>Badgers</b> Suitable foraging habitat for badgers found on site. The biological records data shows that there are no badgers present within a 2km radius of the site, reducing their likelihood of being present on site.</p>	<p><b>Badgers</b> No impacts on any badger setts.</p>	<p><b>Badgers</b> No further surveys are required. However, the following recommendations are given in order to mitigate against potential harm to badgers during the development works.</p> <ul style="list-style-type: none"> <li>• Any trenches dug should either be covered at night or have a rough sawn plank placed in them to act as a ramp for any wildlife which may fall in.</li> <li>• Security lighting to be directed away from the undergrowth.</li> </ul> <p>Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.</p>	<p><b>Badgers</b> Planting fruit trees on the developed site will provide additional foraging resources for badgers.</p>
	<p><b>Water Vole</b> There is no suitable water vole habitat on site, however there is a water course approximately 10m south of the southern site boundary. The biological records data shows that there are no water vole recordings within a 2km radius of the site therefore reducing the likelihood of them being present on site.</p>	<p><b>Water Vole</b> The stream/river will be retained within the developed site however there is a risk of disturbance to water voles during the site clearance and construction works.</p>	<p><b>Water Vole</b> No further surveys.</p>	<p><b>Water Vole</b> A 2-5m buffer zone along the bank of the stream/river/ditch should be maintained as rough grassland to enhance the site for water vole. Measures to avoid accidental pollution of the water course should be implemented (<a href="http://www.hse.gov.uk/coshh/">http://www.hse.gov.uk/coshh/</a>).</p>
	<b>Otter</b>	<b>Otter</b>	<b>Otter</b>	<b>Otter</b>

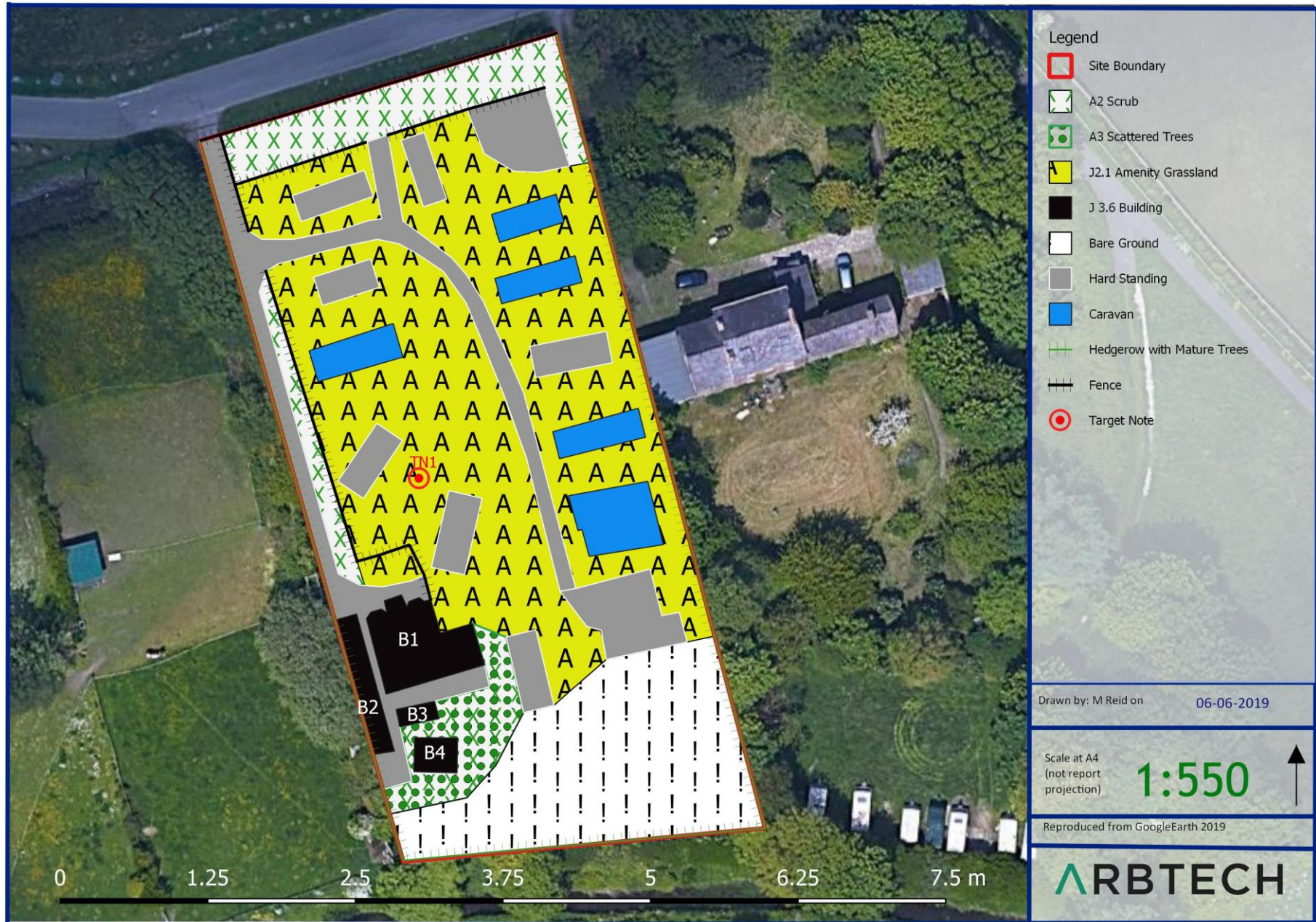
<p>There is no suitable otter habitat on site, however there is a river/stream approximately 10m south of the southern site boundary. The biological records data shows that there are no otter recordings within a 2km radius of the site therefore reducing the likelihood of them being present on site.</p>	<p>The water course will be retained within the developed site. However, there is a risk of disturbance to otters during the site clearance and construction works.</p>	<p>No further surveys.</p>	<p>A 2-5m buffer zone along the bank of the stream/river should be maintained as rough grassland to provide refuge areas for otters. An otter holt should be constructed using waste materials from tree/vegetation removal.</p>
<p><b>Hedgehogs</b> The site provides suitable habitat for hedgehogs.</p> <p>The biological records data includes records of hedgehogs within 2km of the site increasing the likelihood that this species will be present on site.</p>	<p><b>Hedgehogs</b> Any hedgehogs present during the works could be injured or killed.</p>	<p><b>Hedgehogs</b> No further surveys are required. However, the following recommendations are given in order to mitigate against potential harm to hedgehogs during the development works.</p> <ul style="list-style-type: none"> <li>• Any trenches dug should either be covered at night or have a rough sawn plank placed in them to act as a ramp for any wildlife which may fall in.</li> <li>• Security lighting to be directed away from the undergrowth.</li> <li>• Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.</li> </ul>	<p><b>Hedgehogs</b> Gaps should be created in new boundary fences to provide commuting routes through new garden areas of the developed site for hedgehogs. Hedgehog houses should be incorporated into the developed site positioned beneath the hedgerow boundaries or in shady areas of the new gardens.</p>

## 5.0 Bibliography

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### Appendix 1a: Phase 1 Habitat Survey Map





### Appendix 1b: Preliminary Roost Assessment Survey Map



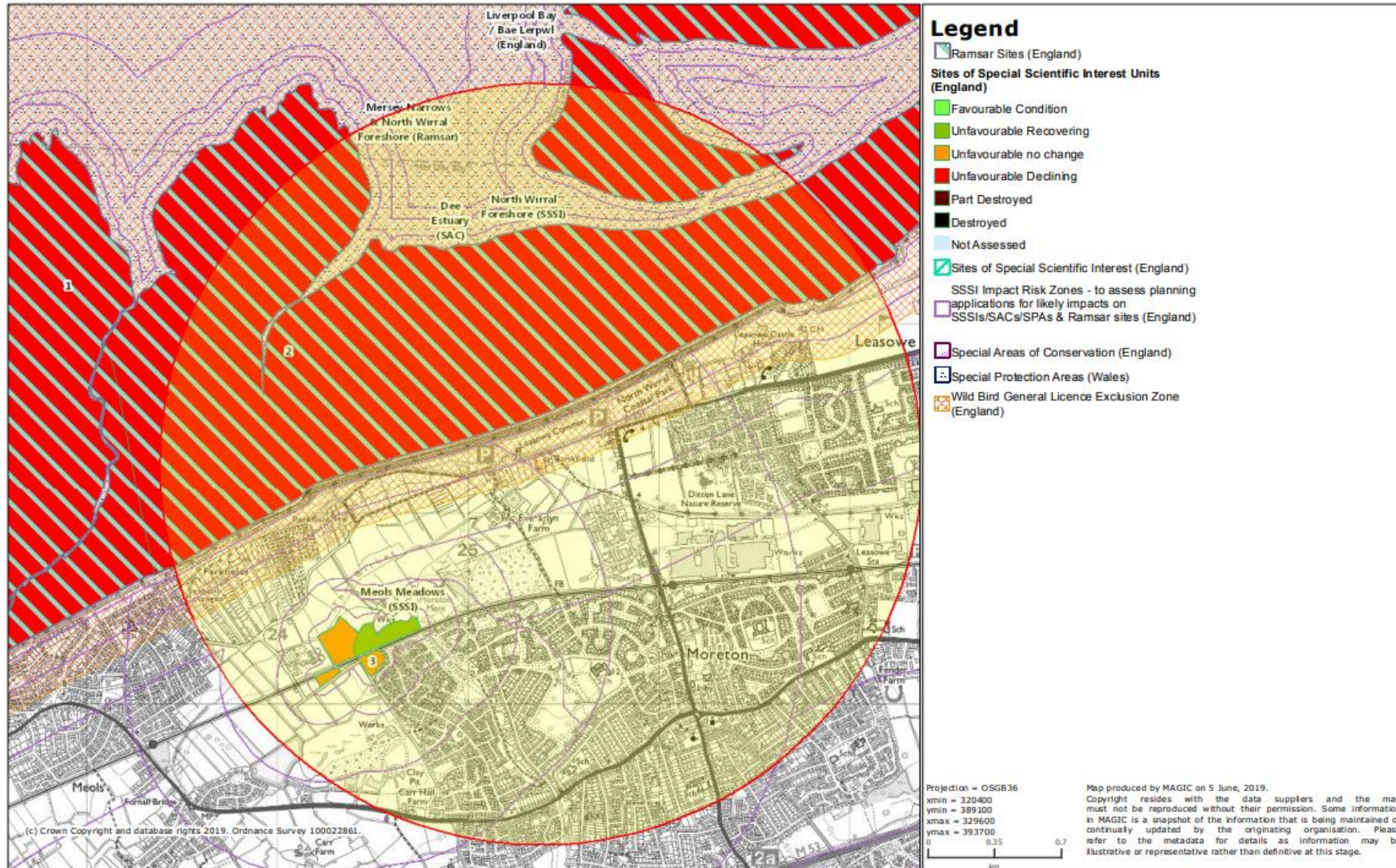


### Appendix 3: Desk Study Information

Full historical records can be provided on request.

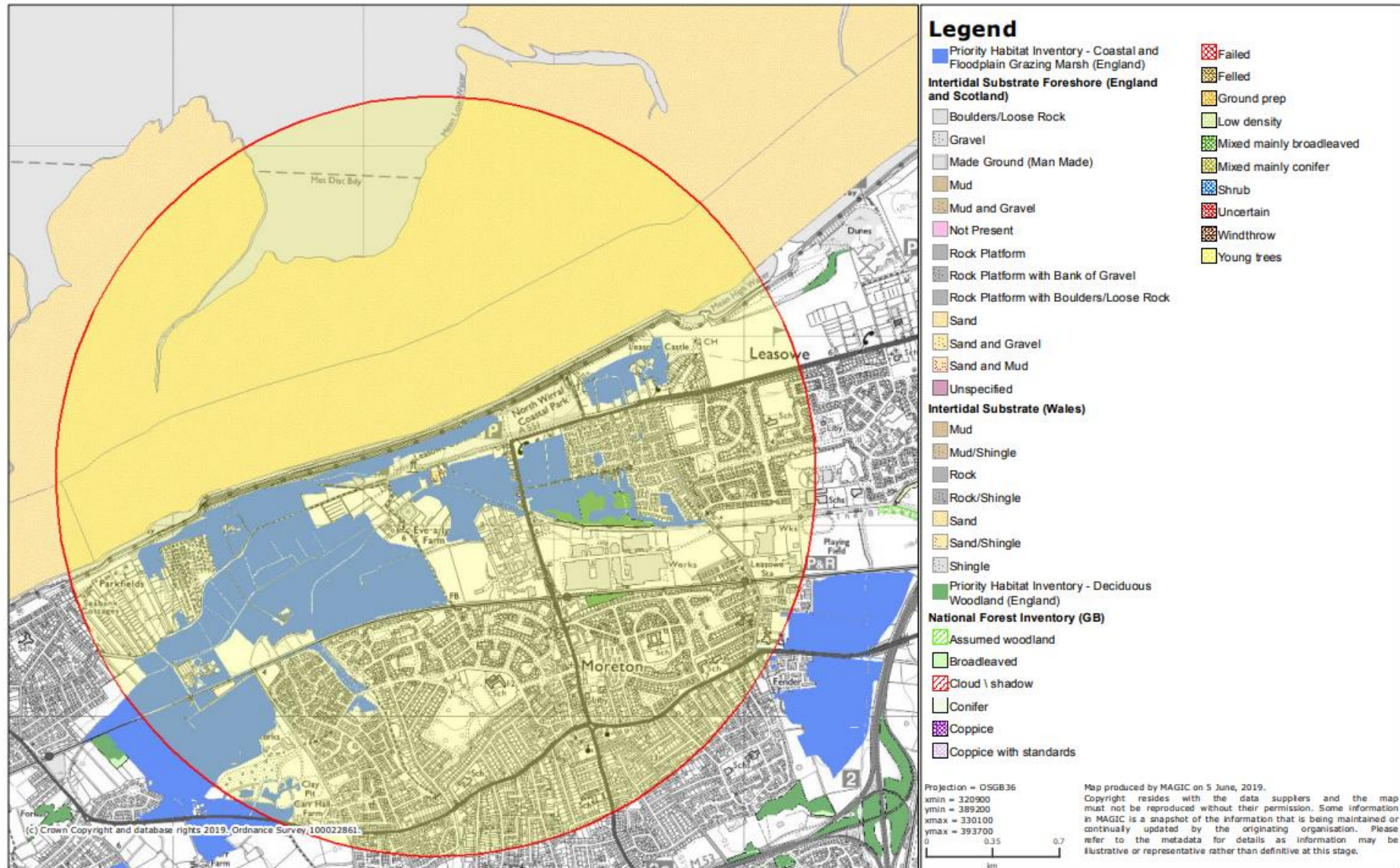
MAGiC

### Designated Sites within a 2km Radius



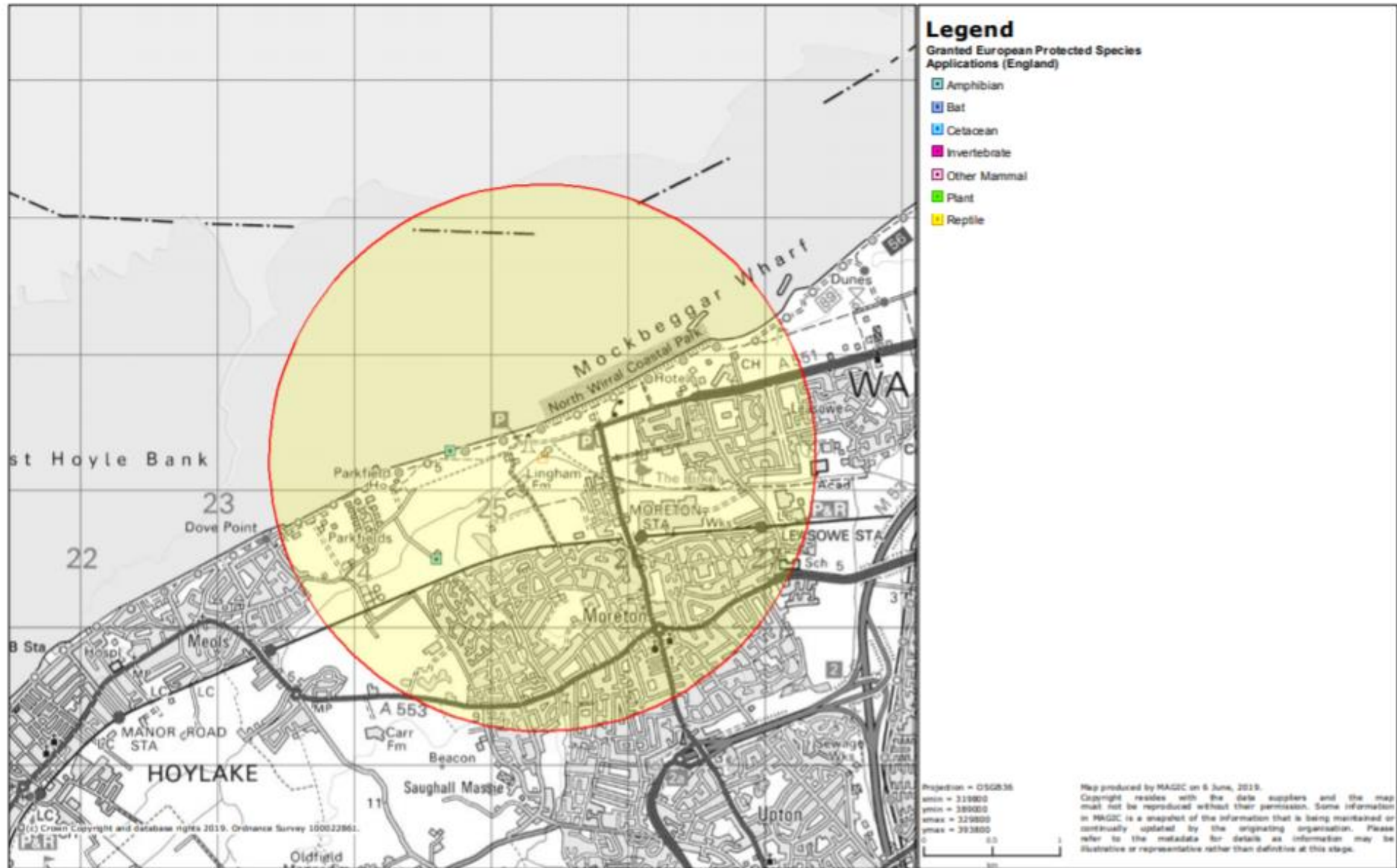


### Priority Habitats within a 2km Radius





### EPSLs within a 2km Radius



## Appendix 4: Legislation and Planning Policy

### LEGAL PROTECTION

#### National and European Legislation Afforded to Habitats

##### *International Statutory Designations*

Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) are sites of European importance and are designated under the EC Habitats Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (the Habitats Directive) and the EC Birds Directive 2009/147/EC on the conservation of wild birds respectively. Both form part of the wider Natura 2000 network across Europe.

Under the Habitats Directive Article 3 requires the establishment of a network of important conservation sites (SACs) across Europe. Over 1,000 animal and plant species, as well as 200 habitat types, listed in the directive's annexes are protected in various ways:

**Annex II species** (about 900): core areas of their habitat are designated as sites of Community importance (SCIs) and included in the Natura 2000 network. These sites must be managed in accordance with the ecological needs of the species.

**Annex IV species** (over 400, including many annex II species): a strict protection regime must be applied across their entire natural range within the EU, both within and outside Natura 2000 sites.

**Annex V species** (over 90): Member States must ensure that their exploitation and taking in the wild is compatible with maintaining them in a favourable conservation status.

SPAs are classified under Article 2 of the Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds both for rare bird species (as listed on Annex I) and for important migratory species.

SACs and SPAs up to 12 nautical miles from the coast (i.e. 'territorial waters') are afforded protection in the UK under the Conservation of Habitats and Species Regulations 2017 which consolidate all amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994.

The Conservation of Offshore Marine Habitats and Species Regulations 2017 consolidate and update the Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007. The 2017 Regulations introduce amendments which transfer responsibility for European nature conservation in the Welsh offshore region to Welsh Ministers. This gives Welsh Ministers similar powers in Welsh offshore waters to those currently exercised by Scottish Ministers in Scottish offshore waters. These regulations transpose into national law Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (Habitats Directive), and elements of Council Directive 2009/147/EC on the conservation of wild birds (Wild Birds Directive) in the UK offshore area. They came into force on 30th November 2017. These regulations apply to the UK's offshore marine area which covers waters beyond 12 nautical miles, within British Fishery Limits and the seabed within the UK Continental Shelf Designated Area. The Conservation of Habitats and Species Regulations 2017 form the legal basis for the implementation of the Habitats and Birds Directives in terrestrial areas and territorial waters out to 12nm in England and Wales (including the inshore marine area) and to a limited extent in Scotland and Northern Ireland.

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and recognises the importance of wetland ecosystems in relation to global biodiversity conservation. The Convention refers to wetlands as "*areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres*".

However, they may also include riparian and coastal zones. Ramsar sites are statutorily protected under the Wildlife & Countryside Act 1981 (as amended 01.04.1996) with further protection provided by the Countryside and Rights of Way (CROW) Act 2000. Policy statements have been issued by the Government in England and Wales highlighting the special status of Ramsar sites. The Government in England and Wales has issued policy statements which ensure that Ramsar sites are afforded the same protection as areas designated under the EC Birds and Habitats Directives as part of the Natura 2000 network (e.g. SACs & SPAs). Further provisions for the protection and management of SSSIs have been introduced by the Nature Conservation (Scotland) Act 2004.

### ***National Statutory Designations***

Sites of Special Scientific Interest (SSSI) are designated by nature conservation agencies in order to conserve key flora, fauna, geological or physio-geographical features within the UK. The original designations were under the National Parks and Access to the Countryside Act 1949 but SSSIs were then re-designated under the Wildlife & Countryside Act 1981 (as amended). As well as reinforcing other national designations (including National Nature Reserves), the system also provides statutory protection for terrestrial and coastal sites which are important within the European Natura 2000 network and globally.

### ***Local Statutory Designations***

Local authorities in consultation with the relevant nature conservation agency can declare Local Nature Reserves (LNRs) under the National Parks and Access to the Countryside Act 1949. LNRs are designated for flora, fauna or geological interest and are managed locally to retain these features and provide research, education and recreational opportunities.

### ***Non- Statutory Designations***

All non-statutorily designated sites are referred to as Local Wildlife Sites (LWS) and can be designated by the local authority for supporting local conservation interest. Combined with statutory designation, these sites are considered within Local Development Frameworks under the Town and Country Planning system and are a material consideration during the determination of planning applications. The protection afforded to these sites varies depending on the local authority involved.

Regionally Important Geological Sites (RIGs) are the most important geological and geomorphological areas outside of statutory designations. These sites are also a material consideration during the determination of planning applications.

### **The Hedgerow Regulations 1997**

The Hedgerow Regulations 1997 are designed to protect 'important' countryside hedgerows. Importance is defined by whether the hedgerow (a) has existed for 30 years or more; or (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations.

Under the Regulations, it is against the law to remove or destroy hedgerows on or adjacent to common land, village greens, SSSIs (including all terrestrial SACs, NNRs and SPAs), LNRs, land used for agriculture or forestry and land used for the keeping or breeding of horses, ponies or donkeys without the permission of the local authority. Hedgerows 'within or marking the boundary of the curtilage of a dwelling-house' are excluded.

## **National and European Legislation Afforded to Species**

### **The Habitats Directive**

The EC Habitats Directive aims to promote the maintenance of biodiversity by requiring Member States to take measures to maintain or restore wild species listed on the Annexes to the Directive at a favourable conservation status, introducing robust protection for those species of European importance. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2017 (the Conservation Regulations) and the Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended). The following notes are relevant for all species protected under the EC Habitats Directive:

In the Directive, the term 'deliberate' is interpreted as being somewhat wider than intentional and may be thought of as including an element of recklessness.

The Habitats Regulations do not define the act of 'migration' and, therefore, as a precaution, it is recommended that short distance movement of animals for e.g. foraging, breeding or dispersal purposes are also considered.

In order to obtain a European Protected Species Mitigation (EPSM) licence, the application must demonstrate that it meets all of the following three 'tests':

- The action(s) are necessary for the purpose of preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequence of primary importance for the environment;
- There is no satisfactory alternative; and
- The action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

### **The Wildlife and Countryside Act (WCA) 1981 (as amended)**

The Wildlife and Countryside Act (WCA) 1981 (as amended) implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention 1979, implemented 1982) and implements the species protection requirements of EC Birds Directive 2009/147/EC on the conservation of wild birds in Great Britain (the birds Directive). The WCA 1981 has been subject to a number of amendments, the most important of which are through the Countryside and Rights of Way (CRoW) Act (2000) and Nature Conservation (Scotland) Act 2004.

Other legislative Acts affording protection to wildlife and their habitats include:

- Deer Act 1991
- Natural Environment & Rural Communities (NERC) Act 2006
- Protection of Badgers Act 1992
- Wild Mammals (Protection) Act 1996

### ***Badgers***

Badgers *Meles meles* are protected under The Protection of Badgers Act 1992 which makes it an offence to:

- Wilfully kill, injure, take, or attempt to kill, injure or take a badger
- Cruelly ill-treat a badger, including use of tongs and digging
- Possess or control a dead badger or any part thereof
- Intentionally or recklessly damage, destroy or obstruct access to a badger sett or any part thereof
- Intentionally or recklessly disturb a badger when it is occupying a badger sett
- Intentionally or recklessly cause a dog to enter a badger sett



- Sell or offers for sale, possesses or has under his control, a live badger

#### Effects on development works:

A development licence will be required from the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) for any development works likely to affect an active badger sett, or to disturb badgers whilst they occupy a sett. Guidance has been issued by the countryside agency's to define what would constitute a licensable activity. It is no possible to obtain a licence to translocate badgers.

#### **Birds**

With certain exceptions, all birds, their nests and eggs are protected under Sections 1-8 of the WCA. Among other things, this makes it an offence to:

- Intentionally (or recklessly in Scotland) kill, injure or take any wild bird
- Intentionally (or recklessly in Scotland) take, damage or destroy (or, in Scotland, otherwise interfere with) the nest of any wild bird while it is in use or being built
- Intentionally take or destroy an egg of any wild bird
- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.
- Intentionally or recklessly obstruct or prevent any wild bird from using its nest (Scotland only)

Certain species of bird, for example the barn owl, bittern and kingfisher receive additional protection under Schedule 1 of the WCA and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC) and are commonly referred to as "Schedule 1" birds.

This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young
- Intentional or reckless disturbance of dependent young of such a bird
- In Scotland only, intentional or reckless disturbance whilst lekking
- In Scotland only, intentional or reckless harassment

#### Effects on development works:

Works should be planned to avoid the possibility of killing or injuring any wild bird, or damaging or destroying their nests. The most effective way to reduce the likelihood of nest destruction in particular is to undertake work outside the main bird nesting season which typically runs from March to August. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

Schedule 1 birds are additionally protected against disturbance during the nesting season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

**Reptiles (Amphibians and reptiles)**

The sand lizard *Lacerta agilis*, smooth snake *Coronella austriaca*, natterjack toad *Epidalea calamita*, pool frog *Pelophylax lessonae* and great crested newt *Triturus cristatus* receive full protection under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
- To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
- To impair their ability to hibernate or migrate
- To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

With the exception of the pool frog, these species are also listed on Schedule 5 of the WCA and they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

Other native species of reptiles are protected solely under Schedule 5, Section 9(1) & (5) of the WCA, i.e. the adder *Vipera berus*, grass snake *Natrix natrix*, common lizard *Zootoca vivipara* and slow-worm *Anguis fragilis*. It is prohibited to:

- Intentionally or recklessly kill or injure these species.

**Effects on development works:**

A European Protected Species Mitigation (EPSM) Licence issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will be required for works likely to affect the breeding sites or resting places amphibian and reptile species protected under Habitats Regulations. A licence will also be required for operations liable to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licences are to allow derogation from the relevant legislation, but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Although not licensable, appropriate mitigation measures may also be required to prevent the intentional killing or injury of adder, grass snake, common lizard and slow worm, thus avoiding contravention of the WCA.

**Water voles**

The water vole *Arvicola terrestris* is fully protected under Schedule 5 of the WCA. This makes it an offence to:

- Intentionally kill, injure or take (capture) water voles
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection
- Intentionally or recklessly disturb water voles while they are occupying a structure or place used for shelter or protection

Effects on development works:

If development works are likely to affect habitats known to support water voles, the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) must be consulted. It must be shown that means by which the proposal can be re-designed to avoid contravening the legislation have been fully explored e.g. the use of alternative sites, appropriate timing of works to avoid times of the year in which water voles are most vulnerable, and measures to ensure minimal habitat loss. Conservation licences for the capture and translocation of water voles may be issued by the relevant countryside agency for the purpose of development activities if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population. The licence will then only be granted to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of works.

**Otters**

Otters *Lutra lutra* are fully protected under the Conservation Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
  - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
  - To impair their ability to hibernate or migrate
  - To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Otters are also currently protected under the WCA through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

Effects on development works:

An EPSM Licence issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will be required for works likely to affect otter breeding or resting places (often referred to as holts, couches or dens) or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, and rear young). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored

**Bats**

All species are fully protected by Habitats Regulations 2010 as they are listed on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. All bats)
- Deliberate disturbance of bat species in such a way as:
  - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
  - To impair their ability to hibernate or migrate
  - To affect significantly the local distribution or abundance of the species

- Damage or destruction of a breeding site or resting place

Bats are afforded the following additional protection through the WCA as they are included on Schedule 5:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

#### Effects on development works:

An EPSM Licence issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will be required for works are likely to affect a bat roost or an operation which are likely to result in an illegal level of disturbance to the species will require an EPSM licence. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

#### ***Dormice***

Hazel Dormice *Muscardinus avellanarius* are fully protected under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
  - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
  - To impair their ability to hibernate or migrate
  - To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Dormice are also protected under the WCA through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

#### Effects on development works:

Works which are liable to affect a dormice habitat or an operation which are likely to result in an illegal level of disturbance to the species will require an EPSM licence issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales (NB: Hazel Dormouse are entirely absent from Scotland)). The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

#### ***White clawed crayfish***

There is a considerable amount of legislation in place in an attempt to protect the White-clawed crayfish *Austropotamobius pallipes*. This species is listed under the European Union's (EU) Habitat and Species Directive and is listed under Schedule 5 of the Wildlife and Countryside Act (1981). This makes it an offence to:

- Protected against intentional or reckless taking
- Protected against selling, offering or advertising for sale, possessing or transporting for the purpose of sale

It is also classified as Endangered in the IUCN Red List of Endangered Species. As a result of this and other relevant crayfish legislation such as the Prohibition of Keeping of Live Fish (Crayfish) Order 1996, a series of licences are needed for working with White-clawed and non-native crayfish. These are:

- A licence to handle crayfish (therefore survey work) in England
- A licence for the keeping of crayfish in England and Wales with an exemption for Signal crayfish (England).
- People in the post-code areas listed with crayfish present prior to 1996 do not need to apply for consent for crayfish already established. It does not, however, allow any new stocking of non-native crayfish into waterbodies. Consent for trapping of non-native crayfish for control or consumption is most likely to be granted in Thames and Anglian regions in the areas with "go area" postcodes.
- Harvesting of crayfish is prohibited in much of England and in any part of Scotland and Wales.

#### Effects on development works:

The relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will need to be consulted about development which could impact on a watercourse or wetland known to support white clawed crayfish. Conservation licences for the capture and translocation of crayfish can be issued if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population. The licence will only be granted to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of the works.

#### **Wild Mammals (Protection Act) 1996**

All wild mammals are protected against intentional acts of cruelty under the above legislation. This makes it an offence to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention, due care and attention should be taken when carrying out works (for example operations near burrows or nests) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

#### **Legislation afforded to Plants**

With certain exceptions, all wild plants are protected under the WCA. This makes it an offence for an 'unauthorised' person to intentionally (or recklessly in Scotland) uproot wild plants. An authorised person can be the owner of the land on which the action is taken, or anybody authorised by them.

Certain rare species of plant, for example some species of orchid, are also fully protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). This prohibits any person from:

- Intentionally (or recklessly in Scotland) picking, uprooting or destruction of any wild Schedule 8 species (or seed or spore attached to any such wild plant in Scotland only)
- Selling, offering or exposing for sale, or possessing or transporting for the purpose of sale, any wild live or dead Schedule 8 plant species or part thereof
- In addition to the UK legislation outlined above, several plant species are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2010. These are species of European importance. Regulation 45 makes it an offence to:
  - Deliberately pick, collect, cut, uproot or destroy a wild Schedule 5 species
  - Be in possession of, or control, transport, sell or exchange, or offer for sale or exchange any wild live or dead Schedule 5 species or anything derived from such a plant.

Effects on development works:

An EPSM licence will be required from the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) for works which are likely to affect species of plants listed on Schedule 5 of the Conservation of Habitats and Species Regulations 2010. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

**Invasive Species**

Part II of Schedule 9 of the WCA lists non-native invasive plant species for which it is a criminal offence in England and Wales to plant or cause to grow in the wild due to their impact on native wildlife. Species included (but not limited to):

- Japanese knotweed *Fallopia japonica*
- Giant hogweed *Heracleum mantegazzianum*
- Himalayan balsam *Impatiens glandulifera*

Effects on development works:

It is not an offence for plants listed in Part II of Schedule 9 of the WCA 1981 to be present on the development site, however, it is an offence to cause them to spread. Therefore, if any of the species are present on site and construction activities may result in further spread (e.g. earthworks, vehicle movements) then it will be necessary to design and implement appropriate mitigation prior to construction commencing.

**Injurious weeds**

Under the Weeds Act 1959 any land owner or occupier may be required prevent the spread of certain 'injurious weeds' including (but not limited to):

- Spear thistle *Cirsium vulgare*
- Creeping thistle *Cirsium arvense*
- Curled dock *Rumex crispus*
- Broad-leaved dock *Rumex obtusifolius*
- Common ragwort *Senecio jacobaea*

It is a criminal offence to fail to comply with a notice requiring such action to be taken. The Ragwort Control Act 2003 establishes a ragwort control code of practice as common ragwort is poisonous to horses and other livestock. This code provides best practice guidelines and is not legally binding.

### **National Planning Policy Framework (England)**

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as UK Biodiversity Action Plan priority species) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

### **The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty**

Section 40 of the Natural Environment and Rural Communities (NERC) Act, 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act (Section 42 in Wales) requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity.' This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

### **Scottish Planning Policy (Published: 23 Jun 2014)**

The SPP sits alongside the Scottish Government planning policy documents. The National Planning Framework (NPF) provides a statutory framework for Scotland's long-term spatial development. The NPF sets out the Scottish Government's spatial development priorities for the next 20 to 30 years.

**A Natural, Resilient Place - Valuing the Natural Environment (National Planning Framework Context) Paragraph 193.** The natural environment forms the foundation of the spatial strategy set out in NPF3. The environment is a valued national asset offering a wide range of opportunities for enjoyment, recreation and sustainable economic activity. Planning plays an important role in protecting, enhancing and promoting access to our key environmental resources, whilst supporting their sustainable use.

### **Policy Principles: Paragraph 194. The planning system should:**

- Facilitate positive change while maintaining and enhancing distinctive landscape character;
- **Conserve and enhance protected sites and species, taking account of the need to maintain healthy ecosystems and work with the natural processes which provide important services to communities;**
- Promote protection and improvement of the water environment, including rivers, lochs, estuaries, wetlands, coastal waters and groundwater, in a sustainable and co-ordinated way;
- Seek to protect soils from damage such as erosion or compaction;

- Protect and enhance ancient semi-natural woodland as an important and irreplaceable resource, together with other native or long-established woods, hedgerows and individual trees with high nature conservation or landscape value;
- Seek benefits for biodiversity from new development where possible, including the restoration of degraded habitats and the avoidance of further fragmentation or isolation of habitats; and
- Support opportunities for enjoying and learning about the natural environment.

#### **Planning Policy Wales (Draft 2018)**

Paragraph 5.42 of the document refers to Biodiversity and Ecological Networks and states:

The planning system has a key role to play in helping to reverse the decline in biodiversity and increasing the resilience of ecosystems, at various scales, by ensuring appropriate mechanisms are in place to both protect against loss and to secure enhancement. Addressing the consequences of climate change should be a central part of any measures to conserve biodiversity and the resilience of ecosystems. Information contained in The State of Natural Resources Report (SoNaRR) (published by Natural Resources Wales and Area Statements should be taken into account. Development plan strategies, policies and individual development proposals must take into account the need to:

- Promote the conservation of biodiversity, in particular the conservation of wildlife and habitats;
- Ensure action in Wales contributes to meeting international responsibilities and obligations for biodiversity and habitats;
- Ensure statutorily designated sites are properly protected and managed;
- Safeguard protected species; and existing biodiversity assets from impacts which directly affect their nature conservation interests and compromise the resilience of ecological networks and the components which underpin them, such as water and soil; and
- Seek enhancement of and improvements to ecosystem resilience by improving diversity, condition, extent and connectivity of ecological networks.

#### **Environment (Wales) Act 2016 and the Biodiversity Duty**

The Environment (Wales) Act introduces a new biodiversity duty, which highlights biodiversity as an essential component of ecosystem resilience. This new duty replaces the biodiversity duty in the Natural Environment and Rural Communities Act 2006 (referred to as the NERC Act). Part 1 of the Act deals with Sustainable management of natural resources including Biodiversity and Resilience of Ecosystems Duty. The Environment Act enhances the current NERC Act duty to require all public authorities, when carrying out their functions in Wales, to seek to “maintain and enhance biodiversity” where it is within the proper exercise of their functions. In doing so, public authorities must also seek to “promote the resilience of ecosystems”. As under the NERC Act the new duty will apply to a range of public authorities such as the Welsh Ministers, local authorities, public bodies and statutory undertakers. This ensures that biodiversity is an integral part of the decisions that public authorities take in relation to Wales. It also links biodiversity with the long term health and functioning of our ecosystems, therefore helping to align the biodiversity duty with the framework for sustainable natural resource management provided in the Act.



**Biodiversity and Resilience of Ecosystems Duty (Section 6 Duty)**

- 5.44 Planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. Planning authorities must also take account of and promote the resilience of ecosystems, in particular the following aspects:
- a) Diversity between and within ecosystems;
  - b) The connections between and within ecosystems;
  - c) The scale of ecosystems;
  - d) The condition of ecosystems (including their structure and functioning); and
  - e) The adaptability of ecosystems.
- 5.45 In fulfilling this duty, planning authorities must have regard to:
- a) The list of habitats of principal importance for Wales, published under Section 7 of the Environment (Wales) Act 2016;
  - b) The State of Natural Resources Report (SoNaRR), published by NRW; and
  - c) Any Area Statement that covers all or part of the area in which the authority exercises its functions.
- 5.46 A proactive approach towards facilitating the delivery of biodiversity and resilience outcomes should be taken by all those participating in the planning process. In particular, planning authorities should demonstrate that they have sought to fulfil the duties and requirements of Section 6 of the Environment Act by taking all reasonable steps to maintain and enhance biodiversity in the exercise of their functions. The broad framework for implementing the duty and building resilience through the planning system includes addressing:
- Diversity: to ensure mechanisms are in place to minimise further loss and that circumstances allow for species' populations to expand and recolonise their natural range (former range) or adapt to future change. This means development should provide a net benefit for biodiversity, and at the very least, with no significant loss of habitats or populations of species, locally or nationally;
  - Extent: to ensure mechanisms allow for the maintenance of existing assets and networks and promote the restoration of damaged, modified or potential habitat and the creation of new habitat. This means that planning choices should incorporate measures which seek the creation and restoration of green networks and linkages between habitats and maintaining and
    - enhancing other green infrastructure features and networks;
  - Condition: this is more complex to address, not least because of the interactions of various factors which underpin habitats. At the very least planning approaches should not compromise the condition of ecosystems. By taking an integrated approach to development, for example, which considers both direct and wider impacts and benefits it should be possible to make a positive contribution through the planning system; and
  - Connectivity: to take opportunities to develop functional habitat and ecological networks across landscapes, building on existing connectivity and quality and encouraging habitat creation and restoration. The opportunities could include enlarging habitat areas, developing buffers around designated sites or other biodiversity assets or corridors (including transport and river corridors) and the creation of 'stepping stones' which will strengthen the ability of habitats and ecological networks to adapt to change, including climate change.