

Ascot Road (R.2) Preliminary Ecological Appraisal December 2016

For Orion (Cassiobridge) Limited



Quality Management

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Executive Summary

Capita was commissioned by Orion (Cassiobridge) Limited to conduct a preliminary ecological appraisal of an area of land off Ascot Road, Watford, WD18 8AD to assess potential ecological impacts of a proposed development comprising 485 units with retail and community floor space and with associated soft and hard landscaping.

The majority of the Site comprises of buildings (industrial / warehouse buildings and disused outbuildings) and hardstanding with occasional areas of ruderal vegetation and scattered scrub. The site is bordered with security fencing and a tree line to the east. Significant green infrastructure is present adjacent to the northern perimeter of the Site formed of a disused rail line currently occupied by grassland, ruderal vegetation and scrub. The rail line provides connectivity to the wider landscape including the Grand Union Canal, the River Gade and the River Colne and areas of semi-natural habitat.

The Site is largely of low ecological value due to the dominance of manmade structures. The warehouse and outbuildings were deemed to hold low bat roosting potential with the exception of a heavily ivy clad structure to the north east of the site which holds moderate potential. In addition, the scrub and scattered trees along the eastern boundary is considered of raised ecological value offering suitable foraging / commuting habitats for bats and birds as well as nesting opportunities for birds.

The disused rail line to the north of the Site has been subject to bat surveys in 2013 by Ove Arup & Partners Ltd. in association with the reinstatement of the rail line. Surveys found a moderate level of bat activity in proximity to the Site with at least five species of bat recorded. Although bat roosts were identified within the third party report, these were located away from the Site with the closest located within a bridge over the River Gade c. 170 m to the west of the Site.

In line with the recorded habitats on site and the assessment of their character, further bat emergence and re-entry surveys are recommended.

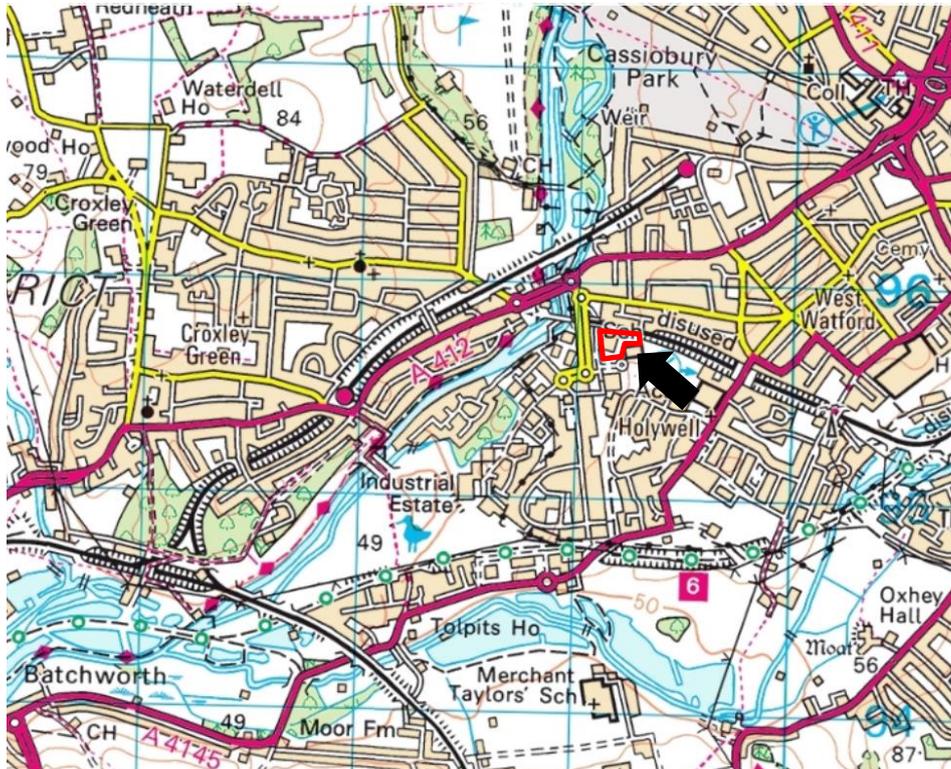
The results of the further surveys will inform appropriate avoidance, mitigation, compensation and / or enhancement measures. These measures will also be dependent on the final scheme design with outline recommendations to include, but not limited to:

- Landscaping across the scheme should give priority to the use of native fruit / nut / seed / flowering species, to provide high quality foraging resources. Particular attention is to be focused on the northern and eastern Site perimeter;
- Inclusion of a network of biodiverse roofs and green walls within the Site;
- To safeguard the Site for bat species it is vital that a sympathetic lighting scheme is designed to retain dark areas for foraging and commuting;
- Sustainable urban drainage system (SuDS) with inclusion of water storage / transport at ground level i.e. rain gardens, infiltration strips etc.; and
- Incorporation of species specific bat / bird boxes into new buildings and trees with particular reference to species recorded in the area e.g. house sparrow, house martin etc.

1. Introduction

- 1.1 Capita was commissioned by Orion (Cassio Bridge) Limited to complete a Preliminary Ecological Appraisal (PEA) of an area of land off Ascot Road, Watford, WD18 8AD (central grid reference TQ 09142 95760). From here in this area of land will be referred to as 'the Site'.
- 1.2 A map showing the general location of the Site is shown in *Figure 1.1* and in detail as *Appendix A*.

Figure 1.1 – General Site Location



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THE SITE

- 1.3 The Site covers an area of 1.58 hectares primarily comprising large operational warehouses with hardstanding to the east and west. The Site is bordered by a one-way road forming the western boundary; a disused railway along the northern boundary; and a tree/scrub line along the eastern boundary with extensive playing fields beyond. The southern boundary of the Site is shared with the newly developed Ascot Road Community Free School with an informal, rough grassland plot south west.
- 1.4 The surrounding area predominantly comprises residential land use with two large business parks to the south east of the Site (Watford Business Park and Croxley Green Business Park). The River Gade runs 0.2 km west of the Site and runs through Croxley Common Moor SSSI approximately 0.9 km south west of the Site. To the west of the Site are small plots of woodland and grassland with the Cassiobury Local Nature Reserve located approximately 0.6 km north.

PROPOSALS

- 1.5 The proposed development comprises a residential led project providing 485 units with retail and community floor space with associated soft and hard landscaping.

AIMS

- 1.6 The aims of the ecological appraisal report are to:
- Identify the ecological habitats of value on the Site and assess their potential to support protected and / or notable species through the completion of an extended Phase 1 habitat survey, see *Appendix A: Phase 1 Habitat Survey Plan (CS089680_ECO_01_Rev_A)*;
 - Provide recommendations for further protected and / or notable species surveys, as deemed necessary in line with potential development proposals;
 - Identify significant features for retention, protection and / or enhancement, where possible; and
 - Provide high level outline recommendations for avoidance, mitigation and / or compensation as necessary.

2. Methodology

2.1 To allow for an accurate assessment of the potential ecological impacts which may be caused by any development works, sufficient information on the current ecological status of the Site is required. This will allow for appropriate avoidance, mitigation and compensation measures to be implemented in a timely manner.

2.2 The information gathered can also be used to inform feasibility studies, planning applications and to identify ecological features suitable for retention and / or enhancement.

PERSONNEL

2.3 The survey and report have been undertaken and prepared by members of the Chartered Institute of Ecology and Environmental Management (CIEEM) with *Table 2.1* below detailing the relevant details.

Table 2.1 – Ecologist details

Name	Qualifications	Bat Licence number
Nick Ellis	MCIEEM CEcol CEnv MSc BSc	CLS0642
Abbie Parke	GradCIEEM MSc BSc	-

Source: Capita 2016

BASELINE INFORMATION

2.4 Baseline information for this ecological appraisal has been collected from the following sources:

- Hertfordshire Environmental Records Centre (HERC) – a data search was commissioned in October 2016 for protected and / or notable species records and designated sites within an approximate 1 km radius of the site, with an extended radius of 5 km for bat records only;
- MAGIC (www.magic.gov.uk) - was utilised as a further information source on designated sites (statutory) within a 1 km study area; and
- Google Maps / Earth (www.google.co.uk/maps) – for the use and analysis of aerial photographs and street view images.
- Ove Arup & Partners Ltd (2013) – Croxley Rail Link, Bat Survey Report (ref. CRL-ARP-00-XX-RP-V-0003)

EXTENDED PHASE 1 HABITAT SURVEY

2.5 An extended Phase 1 habitat survey of the Site was conducted on 14 October 2016, in accordance with the methodology approved by Natural England (NE) and as outlined in the Phase 1 handbook by the Joint Nature Conservation Committee (JNCC)¹, to determine the habitats present on Site and their potential to support protected and / or notable species.

¹ Joint Nature Conservation Committee (2010) Handbook for Phase 1 habitat survey: A technique for environmental audit. Joint Nature Conservation Committee. Peterborough

2.6 The Phase 1 habitat survey specifically records information on:

- Habitat types present on the Site (see *Appendix A: Phase 1 Habitat Survey Plan – CS089680_ECO_01_Rev_A*);
- The character of the habitats present and their suitability to support protected / notable species;
- Features of nature conservation interest e.g. signs of protected / notable species, locally rare plants; and
- Features of ecological interest provided as target notes within *Appendix B*.

BAT ROOST ASSESSMENT

2.7 The trees and buildings on Site were assessed for their potential to support roosting bats, following the criteria developed by the Bat Conservation Trust (Hundt 2012 / Collins 2016). The assessment was conducted by a suitably experienced and licensed surveyor and assistant.

2.8 Trees were inspected externally from ground level as far as practicable and buildings were inspected both externally and internally. Close-focus binoculars were used as necessary to observe all / any potential access points or features considered to have potential to be used by roosting bats. These can include holes, cracks, crevices, gaps behind soffit boarding, joins in internal woodwork, loose lead flashing and loose or missing tiles.

2.9 Observations of direct occupation by bats, such as droppings, urine stains and feeding remains e.g. moth remains around possible access / egress points, were also made during the assessment.

2.10 The assessment criteria utilised for both buildings and trees is detailed in *Table 2.2* below.

Table 2.2 – Categories used to assess bat roosting suitability in buildings and trees

Suitability	Description
Confirmed roost	Evidence of bat occupancy such as droppings and urine stains, witnessing the bats themselves entering / exiting, or a confirmed roost record from a source such as a local bat group.
High	A structure or tree with identified features suitable for use by larger numbers of bats e.g. maternity or hibernation sites, and potentially for longer periods of time due to the likelihood of stable environmental conditions, e.g. temperature and humidity. Suitable features include multiple gaps behind weatherboarding, hanging tiles, roof tiles and lead flashing on typically older buildings of pre (or early 20 th century) including timber-framed and stone dwellings / barns, offering stable environmental conditions. Typically more mature trees with significant features e.g. woodpecker or rot holes, splits, cavities, loose bark etc. which are large enough to support larger numbers of bats. Buildings / trees located within high-quality foraging / commuting habitat and / or well connected to the semi natural habitats within wider landscape such as woodland, naturalised watercourse systems, hedgerows, unimproved grassland / meadows etc
Moderate	Structure / tree with one or more potential roost site but that is unlikely to support a roost of high conservation status e.g. maternity, due to size / condition. Buildings (typically pre-1990) with features such as loose roof tiles, gaps behind soffits, access to cavity walls etc. Trees may have a low number of features not considered suitable for large numbers of roosting bats including dense ivy growth, smaller cavities, cracks, splits.

Suitability	Description
	Within habitats that could be used by foraging bats e.g. scrub, gardens etc with some connectivity to the wider landscape.
Low	Structure / tree with a few observed features only suitable for use by low numbers of bats opportunistically, however, is not considered with sufficient space, appropriate conditions or suitable surroundings to support larger numbers of bats. Typical buildings include modern (post 1990) and / or well-maintained buildings which limited access and / or suitable features, or dilapidated buildings which have become draughty / are subject to unstable environmental conditions. Trees with few and / or superficial features observed. Generally within habitats that could be used by small numbers of commuting / foraging bats but may be isolated / poorly connected e.g. lone trees, defunct hedgerows, urbanised areas.
Negligible	Buildings / trees with no observed features or of construction materials considered unsuitable to support bats, including predominantly prefabricated metal buildings / structures, and young immature or sound trees. Surrounding habitat poor or unsuitable for commuting / foraging, e.g. urbanised and well lit.

Source: Hundt 2012 / Collins 2016 (adapted by Capita 2016)

ASSESSMENT

- 2.11 Preliminary ecological assessment methodology, in line with the CIEEM guidelines, has been used in order to evaluate the potential impacts of any proposed development upon the Site and surrounding habitats.

LIMITATIONS

- 2.12 Ecological surveys are limited by factors which influence the presence of plants and animals, such as the time of year, weather and seasonal variations. The Phase 1 habitat survey does not therefore produce an exhaustive list of plants and animals present on the Site and the absence of evidence of any particular species should not be taken as conclusive proof that the species is not present or that it will not be present in the future. The prevailing habitats were, however, evident and have provided sufficient information for the purposes of this assessment.
- 2.13 Whilst the Phase 1 survey was not completed within the optimal survey period (April – September) given the prevailing habitats on Site are manmade the survey timing was considered appropriate.
- 2.14 Whilst any invasive species recorded on site were noted, an exhaustive search was not undertaken. In addition changes in management and / or habitats could mean species become present in the future.
- 2.15 The survey effort, timings and weather conditions are all considered to be appropriate to allow sufficient data collection for the purposes of this assessment. Overall it is not considered that there are any limitations which would affect the interpretation of the results presented or prevent the objectives of the surveys from being met.

3. Baseline Situation

3.1 The objectives of establishing the ecological baseline are:

- To identify, describe and establish the distribution and extent of important and protected habitats and / or species that could be adversely affected by any development proposals; and
- To characterise ecological features that could be positively enhanced, created or managed and / or those species that could be positively managed to enhance their conservation status, distribution and abundance.

3.2 Natural and semi-natural habitats typically support the greatest diversity of wildlife. Important species and habitats are those protected by international or national legislation. A summary table of relevant legislation can be found in *Appendix C*.

DESIGNATED SITES

3.3 Information on statutory and non-statutory sites within 1 km of the Site was received from HERC and further verified using the MAGIC website, as necessary.

3.4 Sites considered important for their wildlife can be designated by international and national legislation, granting them increased protection. These include Special Areas of Conservation (SAC), Sites of Special Scientific Interest (SSSI) and Local Nature Reserves (LNR).

3.5 There are two statutory designated sites within the study area: Croxley Common Moor SSSI and LNR; and Cassiobury Park LNR. Further details of these sites are given in *Table 3.1* below.

3.6 The Site is located within the Croxley Common Moor SSSI Impact Risk Zone (IRZ) which requires the Local Planning Authority to seek advice from Natural England with regard to potential impacts on this nationally protected site for residential developments exceeding 100 units.

3.7 Areas considered important at a local level can receive non-statutory protection and be designated as Local Wildlife Sites (LWS). Five LWS were identified within the 1 km study area.

Table 3.1 Details of SINC sites within 1 km

Site Name & Reference	Designation	Approximate Distance from Site	Habitats / notable species
Statutory Designated Sites			
Croxley Common Moor	SSSI and LNR	0.9 km	Croxley Common Moor is an extensive area of grass heath on freely draining sandy soils of the Colne Gravels adjacent to the River Gade. A variety of soil types, from acidic to fairly basic, supports a rich assemblage of plant species. The grassland types represented here include examples which are nowhere common in Britain and others which have been significantly reduced in area nationally through drainage and agricultural change. Towards the western end of the site drainage becomes poor and the grassland grades into marshy areas with tall fen vegetation.
Cassiobury Park	LNR	0.6 km	An extensive public open space situated on the chalk of the Gade Valley comprising a complex of semi-natural water courses, springs, open areas, remnant river valley grasslands and broadleaved, part wet, semi-natural and old plantation woodlands. Calcareous springs adjacent to the

Site Name & Reference	Designation	Approximate Distance from Site	Habitats / notable species
			River Gade support plant communities characteristic of rich fen and spring-fed water cress beds. At the northern end there are some long-disused cress beds with open water, tall fen swamp and wet woodland supporting natural alder (<i>Alnus glutinosa</i>) with mature willows (<i>Salix spp.</i>) plus ash (<i>Fraxinus excelsior</i>), pedunculate oak (<i>Quercus robur</i>) and old planted horse-chestnut (<i>Aesculus hippocastanum</i>). This area also contains remnants of unimproved wet rough grassland. The river itself supports a good aquatic flora and important aquatic fauna. At the southern end of the site there is a large fishing lake on a former gravel pit, surrounded by tall fen, goat willow (<i>Salix caprea</i>) and secondary damp woodland, and further old water cress beds. The park incorporates other areas of ecological interest with some old neutral-acidic grassland along the northern boundary and some of the older trees in the main part of the park stemming from former wood pasture of beech (<i>Fagus sylvatica</i>), pedunculate oak and ash. A good diversity of invertebrates and birds has been recorded.
Non-statutory Designated Sites			
Cassiobury Park	LWS	0.6 km	See Cassiobury Park LNR for details
Ascot Road Scrub	LWS	0.2 km	Long established secondary wet alder /willow woodland and scrub in the Gade Valley on former alluvial grassland. The site is crossed by a stream. The vegetation ranges from fen-swamp communities to almost acidic communities on alluvial gravels. There is a small area of drier rank grassland along the eastern edge. Species recorded include wild angelica (<i>Angelica sylvestris</i>), hemp-agrimony (<i>Eupatorium cannabinum</i>), lesser pond-sedge (<i>Carex acutiformis</i>) and reed canary-grass (<i>Phalaris arundinacea</i>).
Gade Avenue	LWS	0.6 km	Buildings and environs important for protected species.
Jacotts Hill/West Herts Golf Course	LWS	0.7 km	Golf course supporting a mosaic of habitats comprising roughs of acid, neutral and calcareous grassland, amenity grassland, broadleaved semi-natural and mixed plantations, and scrub. There are some extensive remnant areas of unimproved acidic grassland, some of which support an assemblage approaching a heathy community. In a few places there are remains of ancient marl pits with a chalk flora. A good diversity of species has been recorded in the sward include some uncommon species. Species noted include sweet vernal-grass (<i>Anthoxanthum odoratum</i>), common bent (<i>Agrostis capillaris</i>), common knapweed (<i>Centaurea nigra</i>), bird's-foot trefoil (<i>Lotus corniculatus</i>), field wood-rush (<i>Luzula campestris</i>), common sorrel (<i>Rumex acetosa</i>), lady's bedstraw (<i>Galium verum</i>), quaking grass (<i>Briza media</i>), common eyebright (<i>Euphrasia nemorosa</i>), sheep's sorrel (<i>Rumex acetosella</i>) and heath bedstraw (<i>Galium saxatile</i>). The woodlands on the site are mainly of the acidic beech, pedunculate oak and ash stand type, consisting of long established secondary woodland which has developed into natural stand types. On the west side of the site the Beech/Ash woodland includes some ancient pollards.
Holywell Farm Allotments	LWS	1 km	Allotment with slow-worms (<i>Anguis fragilis</i>) recorded.

Source: HERC and Natural England² October 2016

² Natural England http://www.sssi.naturalengland.org.uk/citation/citation_photo/1000788.pdf

PROTECTED / NOTABLE SPECIES

3.8 Records of protected and / or notable species, as received from HERC, are detailed in Table 3.2 below. All records are within 1 km, except bats which are within 2 km, of the Site and were all recorded within the last ten years. Where more than one record for a species exists the most recent record was utilised.

Table 3.2 - Protected / notable species records within 1 km (2 km for bats) of the Site

Common Name	Scientific Name	Distance	Date	Legislation	
Mammals					
Eurasian badger	<i>Meles meles</i>	1 km	2015	PBA	
West European Hedgehog	<i>Erinaceus europaeus</i>	Confidential		NERC 41	
Daubenton's bat	<i>Myotis daubentonii</i>	1.1 km SW		ConsReg S2, WACA S5	
Serotine	<i>Eptesicus serotinus</i>			ConsReg S2, NERC 41, WACA S5	
Noctule	<i>Nyctalus noctula</i>			ConsReg S2, WACA S5	
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	2.7 km SW		ConsReg S2, NERC 41, WACA S5	
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	2.7 km S		ConsReg S2, NERC 41, WACA S5	
Pipistrelle species	<i>Pipistrellus spp.</i>	Confidential		2013	ConsReg S2, WACA S5
Brown-long eared bat	<i>Plecotus auritus</i>			2012	ConsReg S2, NERC 41, WACA S5
Bat species	<i>Vespertilionidae</i>			2006	ConsReg S2, WACA S5, LBAP
Natterer's bat	<i>Myotis nattereri</i>		2007		
Birds					
House sparrow	<i>Passer domesticus</i>	Confidential	2014	NERC41, BoCC Red	
Red Kite	<i>Milvus milvus</i>			WACA S1	
Buzzard	<i>Bufo bufo</i>			Bonn	
Sparrowhawk	<i>Accipiter nisus</i>			BoCC Red	
Herring gull	<i>Larus argentatus</i>			BoCC Amber	
Redstart	<i>Phoenicurus phoenicurus</i>				
Black-headed Gull	<i>Chroicocephalus ridibundus</i>				
Common Gull	<i>Larus canus</i>				
Dunnock	<i>Prunella modularis</i>				
Grey wagtail	<i>Motacilla cinerea</i>				
House Martin	<i>Delichon urbicum</i>				
Kestrel	<i>Falco tinnunculus</i>				
Lesser black-backed gull	<i>Larus fuscus</i>				
Stock Dove	<i>Columba oenas</i>				2013
Common Gull	<i>Larus canus</i>			2012	
Plants					
No relevant protected plant species records were found within 1 km of the site.					
Key: WACA – Wildlife and Countryside Act 1981 (as amended), Schedule as listed * denotes partial protection; ConRegs S2 – Conservation of Habitats and Species Regulations 2010, Schedule 2; Bonn – Bonn Convention;					

Common Name	Scientific Name	Distance	Date	Legislation
NERC41 – Natural Environment and Rural Communities Act 2006 Section 41; LBAP – Local BAP; BCC – Birds of Conservation Concern (Eaton et al 2009). BAP – Biodiversity Action Plan; BoCC – Birds of Conservation Concern, conservation status as red or amber listed ³ ; PBA – Protection of Badgers Act 1992				

Source: HERC 2016 extrapolated by Capita

CROXLEY RAIL LINK, BAT SURVEY REPORT (2013)

- 3.9 The disused rail line to the north of the Site has been subject to bat surveys in 2013 by Ove Arup & Partners Ltd. in association with the reinstatement of the rail line.
- 3.10 Dusk emergence and pre-dawn re-entry surveys, activity surveys and static bat detector surveys were undertaken within 250 m of the Site and are considered to be directly applicable to the proposed development.
- 3.11 Surveys found a moderate level of bat activity (commuting and foraging) in proximity to the Site with at least five species of bat recorded:
- Common pipistrelle *Pipistrellus pipistrellus*
 - Soprano pipistrelle *Pipistrellus pygmaeus*
 - Pipistrelle sp. *Pipistrellus sp.*
 - Noctule *Nyctalus noctula*
 - *Nyctalus sp.*
- 3.12 Although bat roosts were identified within the third party report, these were located away from the Site with the closest located within a bridge over the River Gade c. 170 m to the west.

³ Eaton *et al* (2015) Birds of Conservation Concern 4. British Birds 108, pp 708 – 746

4. Survey Information

4.1 An extended Phase 1 Habitat Survey of the site was conducted on 14 October 2016 to identify habitats on Site and to assess their potential to support protected / notable species.

4.2 The habitats have been mapped and are shown in *Appendix A – Phase 1 Habitat Survey Plan (CS084486_02_ECO_01_REV_A)*, with accompanying Target Notes (TN1, TN2 etc.) in *Appendix B*.

HABITAT TYPES PRESENT & POTENTIAL FOR PROTECTED / NOTABLE SPECIES

4.3 Habitats are listed in their order of extent.

4.4 Plant species nomenclature follows that of the 3rd edition of Stace (2010).

BUILDINGS

4.5 The Site was dominated (53.2% / 8,400 sq m) by six large adjoining warehouse buildings with an adjoining office building to the north, small disused outbuildings and a water tank were present to the rear (east) (TN1 – 8).

4.6 Each building was inspected in detail with a summary of each structure provided in *Table 4.1* below.

Table 4.1 Buildings and structures present on Site

TN	Photo	Description	Potential
1		<i>View of east aspect.</i> Main warehouse structure comprising six asymmetrical brick-built structures with open internal voids. Roof cladding appears to be a mixture of corrugated bonded asbestos on shallow pitch with glazed panels on steep north-facing pitch. Flank walls of solid construction where damage permits views.	Low bat roost potential for singleton / small numbers of bats. Features comprise: <ul style="list-style-type: none"> • Damage to brickwork on southern-most east aspect; • Gaps beneath asbestos bonded soffit feature on vertical face of east aspect. Internally, the structures offer negligible potential due to construction and frequent disturbance of operational businesses. Moderate potential for nesting bird species.

TN	Photo	Description	Potential
2		<p><i>View from northern rail corridor.</i> The northern-most pitched structure is metal-clad and appears to be a more recent addition to the original warehouse development.</p>	<p>Negligible potential for roosting bats. Moderate potential for nesting bird species.</p>
3		<p><i>View from northern rail corridor.</i> This two-storey dilapidated building located adjacent to the rail corridor is of single-skin, brick construction, with a flat concrete roof pad. The building is light and drafty with open window frames.</p> <p>Heavy ivy cladding is present on the north, east and west of the building.</p>	<p>The building offers moderate bat roost potential on external ivy-clad aspects. Internally, the building has negligible bat roost potential. Moderate nesting bird potential within heavy ivy cover.</p>
4		<p>Building located to the north of the Site to the east of the warehouse building. Single-storey disused single-skin brick-built plant room. The building's roof comprises an open timber frame with a bitumen felt covering and timber soffits. The roof is water damaged.</p>	<p>Low bat roost potential -This structure is open, light and drafty. Low to moderate nesting bird potential.</p>

TN	Photo	Description	Potential
5		<p>A small metal clad open structure. Building located to the north of the Site to the east of the warehouse building.</p>	<p>Negligible bat roost potential.</p> <p>The building floor is covered in bird (likely feral pigeon) guano and is likely to comprise a large roost / nesting site for this species.</p>
6 & 7		<p>Buildings located to the north of the Site to the east of the warehouse building. The metal water tank (TN6) appears to be disused. This structure was not viewed internally. The outbuilding (TN7) on the right of the picture is of breeze block construction with external render. The building is open with a flat timber roof.</p>	<p>Low bat roost potential within internal timber / block interface. Largely covered in heavy cobwebbing.</p> <p>Low nesting bird potential.</p>
8		<p>Block-work garage located to the south of the large warehouse building - in use at time of survey. Flat roof comprised of metal cladding.</p>	<p>Negligible bat roost potential.</p> <p>Negligible nesting bird potential.</p>

Source: Capita 2016

HARD STANDING

- 4.7 The remainder of the Site consists predominantly of hard standing (44.9% / 7,100 sq m), in the form of large concrete slabs. Towards the east of the Site (especially in the north around the outbuildings) tall ruderal / ephemeral species have grown through faults, cracks and gaps in the concrete. Butterfly-bush (*Buddleja davidii*) is the dominant species (TN9). Other species present include non-native Canadian fleabane (*Erigeron canadensis*), willowherb species (*Epilobium* spp.), bramble (*Rubus fruticosus* agg), silver birch (*Betula pendula*) saplings, bristly ox-tongue (*Picris echioides*) and dandelion (*Taraxacum* spp.).
- 4.8 Towards the south east the hard standing is raised c.1.5 metres and clear of vegetation except for a few butterfly-bush stands (TN10). Dense butterfly-bush growth and rubble separate the upper and lower areas of hardstanding. Towards the south east corner a concrete ramp slopes north downwards to the ground level hard standing.
- 4.9 The hard standing in the north and south west of the Site is regularly used by vehicles and consequently there is no vegetation growth.
- 4.10 Hardstanding is of negligible ecological value however where vegetation is allowed to grow this increases the ecological value as it creates habitats particularly for invertebrates, including pollinator species.

TREE / SCRUB LINE

- 4.11 In the north east corner of the Site there is a small (1.5% / 230 sq m) area of broad-leaved trees and scrub (TN11). Species present include dogwood (*Cornus sanguinea*), willow (*Salix* sp.), hawthorn (*Crataegus monogyna*), oak (*Quercus* spp.), sweet chestnut (*Castanea sativa*) and sycamore (*Acer psuedoplatanus*). Ground flora is dominated by ivy (*Hedera helix*) and bramble.
- 4.12 The trees towards the south of this area are located on top of a c.1.5 metre high ivy clad concrete wall. From here a single line of dogwood and hawthorn runs along the boundary out to the south of the Site. The treeline extends past the school where further species are present including ash (*Fraxinus excelsior*), birch (*Betula* spp.), maple (*Acer* spp.) and oak.
- 4.13 From the north east corner of the Site the tree / scrub line adjoins a tree line extending along the disused railway to the east.
- 4.14 A number of the mature trees including willow sp. and sweet chestnut are ivy clad. They are considered to have low bat roosting potential with potential gaps / crevices under ivy growth and the ivy itself offering suitable roosting features. The scrub and trees offer foraging / commuting habitats for bird and bat and is linked to the wider landscape through the extending tree lines to the north and south.

SCRUB

- 4.15 A small area of dense scrub (0.4% / 70 sq m) dominated by bramble and ivy is present around one of the small buildings towards the north east (TN12).
- 4.16 The scrub provide suitable foraging opportunity for common assemblages of invertebrate including pollinators, bird and bat as well as potential nesting habitats for birds.
- 4.17 Running adjacent to the scrub along the boundary is a c. 2 metre high concrete wall covered in a dense layer of ivy.

BOUNDARY HABITATS BEYOND SITE BOUNDARY

NORTH

- 4.18 Immediately adjacent to the north of the Site is a disused railway on an embankment (TN13). This area was up until recently reported to consist of trees and scrub⁴. It appears to have been recently cleared (within the past 1 to 2 years) with residual tree stumps and timber arisings present. The area is dominated by a fescue species (*Festuca* spp.). Other species present include broadleaf plantain (*Plantago major*), bristly ox-tongue, cleaver (*Galium aparine*), dandelion, ribwort plantain (*P. lanceolata*), thistle (*Cirsium* spp.), speedwell (*Veronica* spp.) and young shoots of butterfly-bush. The large ruderal component of this area suggests recent clearance.
- 4.19 Towards the Site there are areas of dense scrub. Species present include ivy, bramble and nettle (*Urtica dioica*). On the northern edge of the scrub there is a large rubble pile consisting primarily of brick. This scrub and rubble pile offer some potential for protected species including breeding bird and reptile.
- 4.20 Before the clearance this area is likely to have exhibited raised ecological value for a various notable species including bats, birds, invertebrates and widespread reptiles. The current condition is of lower ecological value but this is likely to improve over time.

EAST

- 4.21 To the east of the Site is a large school field comprising amenity grassland of low ecological value.

SOUTH

- 4.22 Adjacent to the south west of the Site is an area (0.2 ha) of semi-improved rough grassland (TN14). Species present include Yorkshire fog (*Holcus lanatus*), hawkbit (*Leontodon* spp.), sorrel (*Rumex acetosa*), teasel (*Dipsacus fullonum*), yarrow (*Achillea millefolium*) and stands of butterfly bush. Scattered trees are present along the southern boundary of this plot. Species present include ash and maple (*Acer* sp.).
- 4.23 Due to its isolated nature (surrounded by hard standing and a road) it is of limited ecological value.

WEST

- 4.24 To the west of the road is a small embankment with varying habitats (TN15). Behind the embankment is an area of bare ground in commercial use.
- 4.25 The north end of the embankment comprises scrub habitat. Species present include bramble, ivy, butterfly-bush, hogweed (*Heracleum sphondylium*), thistle and yarrow.
- 4.26 The southern end has been recently cleared and trees felled. Bare ground is prevalent and ribwort plantain is dominant.
- 4.27 Due to the limited size and isolation, this habitat is of low ecological value.

⁴ Anecdotal report by Eagle Relocations Ltd. representative

INCIDENTAL SPECIES RECORDS

- 4.28 Nine birds were recorded on Site during the visit as detailed in *Table 4.2* below. The majority were recorded flying over the Site. Two hibernating peacock butterflies (*Aglais io*) were recorded inside on the ceiling of an outbuilding attached to the first warehouse.

Table 4.2 – Bird Species recorded on Site during survey visit

Common Name	Latin Name	Conservation Status
Feral pigeon	<i>Columba livia domestica</i>	GREEN
Woodpigeon	<i>Columba palumbus</i>	GREEN
Jackdaw	<i>Corvus monedula</i>	GREEN
Carrion Crow	<i>Corvus corone</i>	GREEN
Red Kite	<i>Milvus milvus</i>	GREEN, WACA S1
Wren	<i>Troglodytes troglodytes</i>	GREEN
Great Tit	<i>Parus major</i>	GREEN
Pied Wagtail	<i>Motacilla alba</i>	GREEN
Blackbird	<i>Turdus merula</i>	GREEN

Source: Capita 2016, Eaton et al⁵. WACA – Schedule 1

⁵ Eaton *et al* (2015) Birds of Conservation Concern 4. British Birds 108, pp 708 – 746

5. Conclusions and Recommendations

- 5.1 In line with the Site's industrial use, the habitats present are predominantly manmade i.e. hardstanding and buildings, and as such the majority of the Site is of limited ecological value.
- 5.2 There are however areas of semi-natural habitats bordering the Site, such as the areas of scrub and regenerating grassland, which are of higher ecological value and have the potential to support protected and / or notable species.
- 5.3 A summary of the Site's potential to support protected / notable species are detailed in *Table 5.1* below along with recommendations for further species specific surveys.

Table 5.1 – Species potential on Site and further survey recommendations

Species	Suitability of habitats	Further recommendations
Amphibian	There are no waterbodies present on Site and three waterbodies within 500 metres of the Site. These waterbodies are separated from the Site by a number of main roads which act as a barrier to amphibian dispersal. There are no suitable habitats for amphibians on Site and consequently, their presence on Site is unlikely.	None
Badger	No evidence of badger setts or activity was identified.	None
Bat	The eastern aspect of the warehouse and two of the small outbuildings have low bat roost potential. The disused, two-storey, ivy clad building adjacent to the rail line has moderate bat roost potential. Ivy-clad mature trees in the eastern tree line hold low bat roost potential. The scrub and eastern tree line on-site and the grassland and embankment bordering hold moderate potential for foraging and commuting bats.	Dusk emergence and/or dawn re-entry bat surveys are recommended at the Site to establish the presence or likely absence of roosting bats. For structures with low potential, a single survey visit is required. Those with moderate potential require two visits. Surveys must be conducted between May and September in line with the bat good practice guidelines ⁶ . In line with the bat good practice guidelines ⁶ no further surveys are required on the trees with low bat roost potential in the eastern boundary. Survey results obtained in 2013 are deemed sufficient to infer a moderate level of bat activity within linear corridors to the north and east of the Site. No further activity surveys are recommended unless the planning application is delayed beyond the next available survey season.
Breeding Bird	Nesting bird habitat is present on the Site in the form of buildings, structures, trees and scrub. Additional nesting, passage and foraging habitat is present to the north and east of the Site.	Habitats and structures present on the Site are relatively limited in terms of nesting and foraging birds. No further surveys are recommended.
Dormice	Habitats on and surrounding the Site are not suitable due to the lack of connectivity to wider suitable habitat and limited foraging and shelter resource.	None
Invertebrate	Man-made habitats present on Site are of limited value for invertebrates.	None

⁶ Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd Edition*. The Bat Conservation Trust, London.

Species	Suitability of habitats	Further recommendations
Reptile	There are no suitable habitats within the Site, however the scrub and grassland on the rail embankment have potential to support widespread reptile species including common lizard and slow-worm.	None

Source: Capita 2016

- 5.4 The Site is located within the Croxley Common Moor SSSI Impact Risk Zone (IRZ). The Local Planning Authority is required to consult Natural England on potential impacts arising from developments exceeding 100 units. In order to address any concerns, it is advised that Natural England is consulted through their discretionary advice service in order to establish potential impacts on the Croxley Common Moor SSSI IRZ and respond accordingly.
- 5.5 The current proposals are set to increase the ecological value of the Site through the design and implementation of a soft landscape design which has been developed.
- 5.6 To further enhance ecological value of the Site recommendations for incorporation into the scheme design include:
- Landscaping across the scheme should give priority to the use of native fruit / nut / seed / flowering species, to provide high quality foraging resources. Particular attention is to be focused on the northern and eastern Site perimeter to augment existing green infrastructure; improve its functionality as a foraging, shelter and passage resource; and limit lighting impacts;
 - Inclusion of a network of biodiverse roofs and green walls within the Site;
 - To safeguard the Site for bat species it is vital that a sympathetic lighting scheme is designed to retain dark areas for foraging and commuting, further information is provided through the Bat Conservation Trust⁷;
 - Sustainable urban drainage system (SuDS) with inclusion of water storage / transport at ground level i.e. rain gardens, infiltration strips etc.;
 - Incorporation of species specific bat / bird boxes into new buildings and trees with particular reference to species recorded in the area e.g. house sparrow, house martin etc.; and
 - Encouraging public engagement through the provision of information signs, creation of 'friends of...' groups to carry out volunteer tasks e.g. scrub clearance and strategic use of features such as living walls / invertebrate hotels in public places.
- 5.7 The incorporation of the above recommendations will contribute to the enhancement of the Site's ecological value. Continual re-assessment of the ecological impacts will be required as the scheme design progresses and in line with the results of the further surveys.

⁷ *Artificial lighting and wildlife Interim Guidance: Recommendations to help minimise the impact artificial lighting; and Bats and Lighting - Overview of current evidence and mitigation (2013)*

Appendix A – Phase 1 Habitat Survey Plan



Key

- Bare Ground
- Building
- Dense Scrub
- Fence
- Hard Standing
- Perennial Vegetaion
- Scattered Scrub
- Scattered Trees
- Semi-improved Grassland
- Site Boundary
- Target Note

PROJECT
Ascot Road, Watford

TITLE
Phase 1 Habitat Survey Plan

CLIENT
Orion (Cassiobridge) Limited

Rev	Drawn by	Checked by	Passed by	Date
	AP	NJE	NJE	05/12/2016

Scales @ A4 Size: 1:8111
Issue Status: **FINAL**

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Drawing Number	REV.
CS089680_ECO_01	A

Appendix B – Target Notes

Ref	Description / Comments	Photo
9	<p>Hardstanding comprising of large slabs of concrete. In the east of the site the area is less disturbed. Consequently tall ruderal and ephemeral species have grown through the edges, cracks and gaps in the concrete.</p> <p>This vegetation ingress offers a habitat mosaic and offers low value invertebrate interest.</p>	 <p>View of hard standing east of the outbuildings</p>  <p>View south at the hard standing with ephemeral plant growth</p>  <p>Hard standing amongst the outbuildings in the east</p>

Ref	Description / Comments	Photo
10	An area of hard standing raised c. 1.5 metres above ground level on top of a mound of rubble with dense butterfly-bush growth.	 <p data-bbox="735 887 1139 913">Raised area of hardstanding looking west</p>  <p data-bbox="735 1267 1262 1294">Rubble mound and buddleia surrounding raised section</p>  <p data-bbox="735 1588 948 1615">View of concrete ramp</p>

Ref	Description / Comments	Photo
11	<p>A small area of broadleaved trees in the north east corner of the Site. Species present include dogwood, goats willow, hawthorn, oak, sweet chestnut and sycamore. The scrubby undergrowth is dominated by ivy and bramble.</p> <p>A number of the mature trees are ivy clad and have low bat roosting potential. The extending treelines north and south offer commuting / foraging habitat for bat and nesting / foraging habitat for bird.</p>	 <p>Tree line in the north east corner of the Site</p>  <p>Ivy clad trees</p>  <p>Row of hawthorn and dogwood looking north</p>

Ref	Description / Comments	Photo
12	<p>Scrub habitat around one of the outbuildings in the north. Species present include bramble and ivy.</p> <p>The scrub provide suitable foraging opportunity for common assemblages of invertebrate including pollinators, bird and bat as well as potential nesting habitats for bird.</p> <p>Adjacent to the scrub is an ivy clad c.2 metre high concrete wall. The dense ivy cover has low potential for roosting bat (bottom image).</p>	 <p>Scrub to the north of the site looking east</p>  <p>Looking west at the scrub</p>  <p>Ivy clad concrete wall adjacent to scrub</p>

Ref	Description / Comments	Photo
13	<p>A disused railway on a recently cleared embankment. Species present include, bristly ox-tongue, cleaver, dandelion, fescue, plantain, thistle, speedwell and young shoots of buddleia.</p> <p>Towards the Site are areas of dense scrub and brick rubble. Species present include bramble, ivy and nettle.</p> <p>The regenerating grassland is of limited ecological value. The scrub and rubble is of low value for foraging bird and bat and for invertebrate and reptile.</p>	 <p>Disused railway looking west</p>  <p>Scrub and rubble pile</p>
14	<p>Area of rough grassland to the south of the site. Species present include Yorkshire fog, hawkbit, sorrel, teasel, yarrow and stands of butterfly-bush.</p> <p>Due to its isolated nature it is of limited ecological value.</p>	 <p>View of the grassland looking west</p>

Ref	Description / Comments	Photo
15	<p>A small embankment with varying habitats. Towards the north is scrub with species including bramble, ivy, hogweed and thistle.</p> <p>The south has been recently cleared and consists mainly of bare ground and ribwort plantain.</p> <p>These habitats offer limited ecological value due to their isolated nature.</p>	 <p>View of the embankment looking north</p>  <p>View of the embankment looking south</p>

Appendix C – Relevant Legislation

Species	Legislation	Offences	Licensing procedures
Adder Common lizard Grass snake Slow worm	Wildlife and Countryside Act 1981 S.9(1) (part); S.9(5)	Intentionally kill or injure any common reptile species.	No licence is required in England; however an assessment for the potential of a site to support reptiles should be undertaken prior to any development works which have potential to affect these animals. Mitigation is required where reptiles are present to avoid an offence.
Bats <i>European protected species</i>	Conservation of Habitats and Species (Amendment) Regulations 2010 Reg 41	Deliberately ¹ capture, injure or kill a bat; deliberate disturbance ² of bats; or damage or destroy a breeding site or resting place used by a bat. [The protection of bat roosts is considered to apply regardless of whether bats are present.]	A Natural England (NE) development licence is required in England to permit any works that could potentially commit an offence. The licence application involves a detailed submission to NE of baseline survey information, reasoned statements, method statements, mitigation and monitoring. The licence, including collection of the survey data and writing of all the supporting information can take from three to six months to complete. Upon submission, NE allow 30 working days to review the application and make a decision. Please be aware that not all applications are granted and delays can be likely. Please note surveys for the species are seasonally constrained to the period when the species are active. Mitigation can also be seasonally constrained.
	Wildlife and Countryside Act 1981 (as amended) S.9	Intentionally or recklessly obstruct access to any structure or place used for shelter or protection or disturb a bat in such a place.	A licence from NE is required for surveys (scientific purposes) that would involve disturbance of bats or entering a known or suspected roost site.
Badger	Protection of Badgers Act 1992	Wilfully kill, injure or take a badger; or intentionally or recklessly damage, destroy or obstruct access to a badger sett or disturb a badger in its sett. [It is not illegal to carry out disturbance activities in the vicinity of setts that are not occupied.]	Where required, licences for development activities involving disturbance or sett interference or closure are issued by Natural England (NE). Licences for activities involving watercourse maintenance, drainage works or flood defences are issued under a separate process. Licences are normally not granted from December to June inclusive because cubs may be present within setts.
	Wildlife and Countryside Act 1981 (as amended) S.9	Intentionally or recklessly obstruct access to any structure or place used for shelter or protection or disturb a bat in such a place.	A licence from NE is required for surveys (scientific purposes) that would involve disturbance of bats or entering a known or suspected roost site.

Species	Legislation	Offences	Licensing procedures
Birds	Wildlife and Countryside Act 1981 (as amended) S.1	<p>Intentionally kill, injure or take any wild bird; intentionally take, damage or destroy the nest of any wild bird while that nest is in use or being built; intentionally take or destroy the nest or eggs of any wild bird.</p> <p>[Special penalties are liable for these offences involving birds on Schedule 1 (e.g. most birds of prey, kingfisher, barn owl, black redstart, little ringed plover).]</p> <p>Intentionally or recklessly disturb a Schedule 1 species while it is building a nest or is in, on or near a nest containing eggs or young; intentionally or recklessly disturb dependent young of such a species.</p>	<p>No licences are available to disturb any birds in regard to development.</p> <p>Licences are available in certain circumstances to damage or destroy nests, but these only apply to the list of licensable activities in the Act and do not cover development.</p> <p>General licences are available in respect of 'pest species' but only for certain very specific purposes e.g. public health, public safety, air safety.</p>
Invertebrates	<p>Conservation of Habitats and Species Regulations 2010 (as amended)</p> <p>Wildlife and Countryside Act 1981 (as amended)</p>	<p>Specific invertebrate species receive different levels of protection including intentional killing, injuring, taking, possession or control (live or dead animal, part or derivative), disturbance, damage, destruction or obstruction to a place used by the species for shelter or protection, and against sale, and / or transporting for the purpose of sale.</p>	<p>Large blue butterfly, Fisher's estuarine moth and little ramshorn whirlpool snail are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of The Conservation of Habitats and Species Regulations 2010 (as amended) making them European Protected Species.</p> <p>The remaining protected invertebrates are listed in Schedule 5 of Wildlife and Countryside Act 1981 (as amended).</p> <p>379 species of invertebrate are protected under the Natural Environment and Rural Communities (NERC) Act. Add NERC and SoCC</p>
Rabbits, foxes and other wild mammals	Wild Mammals (Protection) Act 1996	Intentionally inflict unnecessary suffering to any wild mammal.	<p>Natural England provides guidance in relation to rabbits (TIN003, Rabbits- management options for preventing damage, July 2007) and foxes (which are also protected under the Wildlife and Countryside Act 1981 from live baits and decoys, see TAN43 April 2005 and TAN08 April 2005) as well as other wild mammals; see Natural England's website for the list of 'Regulatory Guidance, Best Practice and Information'.</p> <p>Lawful and humane pest control of these species is permitted.</p>

¹Deliberate capture or killing is taken to include “accepting the possibility” of such capture or killing

²Deliberate disturbance of animals includes in particular any disturbance which is likely a) to impair their ability (i) to survive, to breed or reproduce, or to rear or nurture their young, or (ii) in the case of animals of hibernating or migratory species, to hibernate or migrate; or b) to affect significantly the local distribution or abundance of the species to which they belong.

Lower levels of disturbance not covered by the Conservation of Habitats and Species (Amendment) Regulations 2012 remain an offence under the Wildlife and Countryside Act 1981 although a defence is available where such actions are the incidental result of a lawful activity that could not reasonably be avoided.

Designation	Legislation	Protection	Guidance
Site of Special Scientific Interest (SSSI)	Wildlife and Countryside Act 1981 (as amended). Countryside and Rights of Way Act 2000 (CROW) Natural Environment & Rural Communities (NERC) Act 2006 S.40 (which superseded S.74 of the Countryside & Rights of Way Act 2000).	It is an offence to carry out or permit to be carried out any potentially damaging operation. SSSIs are given protection through policies in the Local Development Plan.	Owners, occupiers, public bodies and statutory undertakers must give notice and obtain the appropriate consent under S.28 before undertaking operations likely to damage a SSSI. S.28G places a duty on all public bodies to further the conservation and enhancement of SSSIs. The National Planning Policy Framework (NPPF) reinforces this by stating (para 118) that the local planning authority can refuse planning permission for a proposed development that is likely to cause an adverse impact upon a SSSI that cannot be mitigated (through locating the development on an alternative site with less harmful impacts, adequately mitigate the impact(s), or, as a last resort, compensation for the impact(s) / loss of habitat). The CROW Act increases protection for Sites of Special Scientific Interest (SSSI) and strengthens wildlife enforcement legislation. It also brings about the duty on government departments to have regard for the conservation of biodiversity and maintain lists of species and habitats for which conservation steps should be taken or promoted, in accordance with the Convention on Biological Diversity (Section 73 list). The NERC Act, 2006, paragraph 55 amends the legislation with regards to offences on SSSIs.
Local Nature Reserve (LNR)	National Parks and Access to the Countryside Act 1949 S.21	LNRs are given protection through policies in the Local Development Plan.	LNRs are generally owned and managed by local authorities. Development proposals that would potentially affect a LNR would need to provide a detailed justification for the work, an assessment of likely impacts, together with proposals for mitigation and restoration of habitats lost or damaged.
Local Wildlife Site (LWS)	There is no statutory designation for LWSs.	LWSs are given protection through policies in the Local Development Plan.	Development proposals that would potentially affect a LWS would need to provide a detailed justification for the work, an assessment of likely impacts, together with proposals for mitigation and restoration of habitats lost or damaged.

Habitats & Species	Legislation	Guidance
Species and Habitats of Principal Importance for the Conservation of Biodiversity	Natural Environment & Rural Communities (NERC) Act 2006 S.40 (which superseded S.74 of the Countryside & Rights of Way Act 2000).	S.40 of the NERC Act 2006 sets out the duty for public authorities to conserve biodiversity in England and Wales. Habitats and species of principal importance for the conservation of biodiversity are identified by the Secretaries of State for England, in consultation with NE and are referred to in S.41 of the NERC Act. The list of habitats and species was updated in 2008: England: http://www.ukbap-reporting.org.uk/news/details.asp?x=45 The habitats and species listed are not necessarily of higher biodiversity value, but they may be in decline. Habitat Action Plans and Species Action Plans are written for them or are in preparation, to guide their conservation. Ecological impact assessments should include an assessment of the likely impacts to these habitats and species.
UK 2012 Biodiversity Framework (UKBF) Habitats & Species	No specific legislation, unless it is also a species or habitat of principal importance as described above.	The UKBF is the UK's initiative to maintain and enhance biodiversity in response to the challenges the Nagoya Agreement brought forward during the Convention on Biological Diversity signed in 2010. The UKBF is divided into individual definitive strategy reports for each component country within the UK. England's strategy 'Biodiversity 2020' sets out a key mission: "to halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people ⁸ ". This strategy looks into conserving and enhancing both wildlife distribution and habitat connectivity across the country, reaching high level targets by 2020. Although the UK Biodiversity Action Plan (UKBAP) has been superseded by the UKBF, Local BAPs are still relevant and should be consulted during any proposed works.
Tree Preservation Order (TPO)	The Town and Country Planning (Tree Preservation) (England) Regulations 2012	Covered under The Town and Country Planning Regulations (2012) for England making it an offence to cut down, top, lop, uproot, wilfully damage or wilfully destroy a tree (which is protected by a TPO or that is within a conservation area) without the Local Planning Authority's permission.
Non-native invasive species e.g. Variegated yellow archangel Japanese knotweed, Rhododendron Himalayan balsam etc	Wildlife and Countryside Act 1981 S.14 (as amended) Regulation on Invasive Alien Species (Regulation EU No 1143/2014)	It is illegal to plant or otherwise cause to grow in the wild these species. Any contaminated soil or plant material is classified as controlled waste and should be disposed of in a suitably licensed landfill site, accompanied by appropriate Waste Transfer documentation, and must comply with section 34 of the Environmental Protection Act 1990.

⁸ Defra (2012) *Biodiversity 2020 – A strategy for England's Wildlife and ecosystem services*

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