TIM MOYA ASSOCIATES

Extended Phase One Habitat Assessment

Including:
Extended Phase 1 Habitat Assessment
Bat Scoping Assessment
Great Crested Newt HSI Survey

Campus West and Town Centre North
Welwyn Garden City
Hertfordshire
AL8 6AE

January 2020

191026-ED-01

Limitations and Copyright

Project	Campus West and Town Centre North
Report Type	Phase 1 Habitat Assessment
Author	Hattie Taylor, Consultant Ecologist
Reviewed by	Simon Thomas MCIEEM, Principal Ecologist
Original Report Date	08/01/2020
Updates	

CONTENTS PAGE (CLICK TO FOLLOW LINKS)

NON-TECHNICAL SUMMARY

This report assesses the ecological value of the proposed development site at Campus West and Town Centre North within Welwyn Garden City.

The site survey included an assessment of the habitats found within the site and the likely impact of the proposed development on habitats of ecological value and protected and notable species.

This report is broadly considered valid for a duration of two years, although some ecological factors such as use of badger setts, and presence of invasive species may change within shorter timescales.

Key results:

The site is dominated by hard standing and buildings.

Sherrardspark Wood borders the Campus West section of the site to the north.

Recommendations (see report for details):

- The adjacent woodland and Local Wildlife Site should be retained and protected from any impacts arising from the proposed development. It may be appropriate for the development to contribute to the management of public access, in order to avoid a detrimental impact on the woodland habitats.
- Trees within the site should be retained or replaced wherever possible. Tree protection areas and methods should be advised by a suitably qualified arboricultural consultant.
- It is recommended that the ditch to the north of Town Centre North is retained and protected.
- Some of the trees within the site have not been assessed for bat potential. A bat scoping survey is recommended if these trees are due to be impacted by the development. Details of which trees have been assessed are available in Appendix 4.
- To avoid an impact on commuting and foraging bats, it is recommended that lighting is designed to minimise illumination of suitable habitats.
- To avoid harm to reptiles (if present), precautionary working methods and timing are recommended for removal of suitable vegetation (see report for details).
- Care should be taken when removing brash or dense vegetation to avoid harm to hedgehogs which may be present.
- Rabbit burrows, if found, should not be crushed or blocked (see report for details).

- Vegetation and buildings suitable for nesting birds may only be removed during the nesting season if they have been checked by an ecologist and no nests are present.
- Four invasive plant species were recorded within the site – *Cotoneaster*, snowberry, cherry loreal and buddleia. To avoid spreading these plants, they should be disposed of responsibly.
- Recommendations are included at the end of this report for measures to enhance the site for local biodiversity.

1 INTRODUCTION

Background

1.1 This report has been instructed by Welwyn and Hatfield Borough Council.

1.2 The proposed development involves the redevelopment of the two adjacent sites currently occupied by the Campus West and Town Centre North.

Purpose of the report

1.3 This report assesses the ecological interest of the site and the potential impacts of the proposed development on biodiversity.

1.4 Ecological surveys are sequential in nature and any follow up, species-specific reports will supersede the information present in this report, even if both are submitted together.

1.5 TMA have been instructed to undertake an Extended Phase 1 Habitat Survey - a method of ecological assessment outlined in the JNCC Handbook for Phase 1 Habitat Survey a technique for environmental audit (2010). These guidelines state that the aim of the Phase 1 Survey is to observe, map and catalogue "*the potential value of the habitat.*" Since its publication the ecological consultancy industry has adapted the survey to make recommendations for further survey work as appropriate.

1.6 This report aims to satisfy the requirements of the National Planning Policy Framework (MHCLG, 2019), identifying ecological features or protected species within or near the site that could potentially be impacted by the proposed development and opportunities for incorporating biodiversity enhancements into the development proposals.

1.7 This report has been produced with reference to current guidelines for preliminary ecological appraisal (CIEEM, 2017) and with Biodiversity - Code of Practice for Planning and Development (BSI, 2013).

1.8 To provide information to support the ecological assessment, a bat scoping survey and great crested newt (*Triturus cristatus*) (GCN) Habitat Suitability Index (HSI) assessment have also been undertaken.

Limitations

1.9 The site was accessed during December, a time when some plant species may not be evident. However, extensive stands of invasive species such as Japanese knotweed (*Fallopia japonica*) or giant hogweed (*Heracleum mantegazzianum*) would be expected to be evident. Where further botanical or invasive species surveys are considered necessary, these have been recommended within this report.

1.10 Two of the buildings within the site were assessed for bat roost potential. Internal access to the garage building was limited as a large percentage of the garages were not accessible.

1.11 As the attributes of the site and its potential for protected, notable and invasive species may change over time, this report is broadly considered valid for a duration of **two years**, after which time it is recommended that an update site assessment is undertaken. In some cases, protected or invasive species' use of a site may change over a shorter timescale, for instance, the use of a badger sett by badgers, which may change month to month. In such cases, appropriate precautionary advice or recommendations for update surveys are given within this report.

Information supplied

1.12 This report has been prepared with reference to the following supplied plans, showing the extent of the site boundary and the proposed development (at this stage):

- Redline Boundary – Site A, Welwyn Garden City Town Centre North, 27/06/19 (01)
- Redline Boundary – Site B, Welwyn Garden City Town Centre North, 27/06/19 (01)

1.13 Please note the above-named plans may be superseded or updated without warranting an update of this report, if the changes are insignificant to the impact of the development on biodiversity.

Site location

1.14 The site is located in Welwyn Garden City Centre and the area surrounding it is predominantly comprised of buildings and hard standing. A large woodland is present to the north-east of the site.

1.15 The central grid references for the sites are TL 23881 13206 and TL 23605 13399. Campus west covers approximately 2.5 ha and Town Centre North covers approximately 5.2 ha.

2 RELEVANT LOCAL PLANNING POLICY
Welwyn and Hatfield District Council Draft Local Plan 2016

Policy SADM16 - Ecology and Landscape

2.1 The Ecological Assets

1. Proposals will be expected to maintain, protect and wherever possible enhance biodiversity, the structure and function of ecological networks and the ecological status of water bodies.

2. Proposals that would result in loss of or harm to: International sites, Sites of Special Scientific Interest, National Nature Reserves, Local Nature Reserves or other statutorily protect features or species, will be refused unless:

- The mitigation hierarchy has been followed, to firstly avoid, reduce and remediate direct and indirect adverse impacts before considering compensation; and
- imperative reasons of overriding public interest can be demonstrated.

Ancient Woodland, veteran trees, chalk river habitats or habitats or species of national principal importance, will be refused unless:

- The mitigation hierarchy has been followed, to firstly avoid, reduce and remediate direct and indirect adverse impacts before considering compensation; and
- The need for, and benefits of, the development significantly outweigh the loss or harm.

Local Wildlife Sites, other habitats, species and ecological assets of local importance, including ecological networks, woodland, orchards, protected trees and hedgerows and allotments, will be refused unless:

- The mitigation hierarchy has been fully implemented to avoid, reduce and remediate and compensate direct and indirect adverse impacts; and
- The need for, and benefits of, the development outweigh the loss or harm.

3. Where compensation is required to make development acceptable within 2 above, necessary financial and/or other provision will be required to deliver and maintain ecological and biodiversity objectives over appropriate time scales.

3 SURVEY METHODOLOGY

Data Searches

3.1 The government's MAGIC search tool was searched for statutory sites designated for nature conservation interest within 7 km of the site, and for records of European Protected Species licences within 2 km of the site.

3.2 Herts Environmental Records Centre was consulted for records of non-statutory sites designated for nature conservation interest and for historic records of protected or notable species within 2 km of the site.

Site Survey

3.3 The survey was undertaken on the 16th and 18th of December by Brooke Waites of Tim Moya Associates, an experienced Senior Ecologist and Graduate Member of the Chartered Institute for Ecology and Environmental Management (CIEEM) and Hattie Taylor of Tim Moya Associates, an experienced Consultant Ecologist and Qualifying Member of the Chartered Institute for Ecology and Environmental Management (CIEEM). During the survey the weather conditions were not considered to pose any limitations to the survey.

3.4 The vegetation and habitat types within the site were noted during the survey in accordance with the categories specified for a Phase 1 Vegetation and Habitat Survey (JNCC, 2010). Dominant plant species were recorded for each habitat present.

3.5 The site was inspected for evidence of and its potential to support protected or notable species, especially those listed under *The Conservation of Habitats and Species Regulations 2017,* the *Wildlife & Countryside Act 1981* (as amended), including those given extra protection under the *Natural Environment and Rural Communities (NERC) Act 2006* and *Countryside & Rights of Way (CRoW) Act 2000*, and listed on the UK and local Biodiversity Action Plans. Such species include amphibians, reptiles, bats, badgers, birds, dormice and water voles. Evidence of badgers was searched for throughout the site, including setts, footprints, feeding signs, hairs and droppings.

3.6 The site was searched for evidence of invasive plant species, such as Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens glandulifera*), giant hogweed (*Heracleum mantegazzianum*), horizontal/wall cotoneaster (*Cotoneaster horizontalis*) and floating pennywort (*Hydrocotyle ranunculoides)*.

GCN HSI Assessment

3.7 The great crested newt habitat suitability index (HSI) assessment was undertaken based on methodologies detailed in Oldham *et al*., 2000. The HSI is a quantitative measure of the suitability of a pond to establish the likelihood of GCN being present. The assessment is based on ten factors including pond area, shade, terrestrial habitat and water quality. The resulting index for each pond is expressed as a figure between 0 and 1, with scores below 0.5 indicating poor suitability for GCN and above 0.8 indicating excellent suitability.

3.8 All ponds within a 500 m radius of the proposed development, where access was possible, were inspected, unless they were considered to be sufficiently separated from the development site that the dispersal of GCN into the site was considered highly unlikely.

Bat Scoping Survey

3.9 The bat scoping survey was undertaken in accordance with the Bat Conservation Trust's *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins, 2016). The surveyor holds a Natural England licence to disturb bats whilst surveying. The buildings were inspected externally from all angles using binoculars and internally using a high-powered torch to inspect loft spaces (where present). Trees were inspected from ground level, using binoculars where needed and a high-powered torch to inspect potential bat roost features. Where possible, a ladder was used to inspect features within 3 m of ground level. An endoscope was used to investigate cavities where possible. All aspects of each tree were viewed, and wherever visibility was restricted (e.g. due to ivy or foliage), this is stated in the report.

3.10 Evidence searched for included bat droppings, feeding remains, staining from urine or grease marks and potential access points into roosting cavities. Features indicating potential for bat roosts included gaps beneath roof tiles, weatherboarding and/or hanging tiles, missing mortar, holes in tree trunks, cracks in tree limbs, loose bark and dense ivy growth.

4 DESK STUDY RESULTS

Designated Sites

4.1 The site itself is not covered by any statutory or non-statutory nature conservation designations.

4.2 There are eleven statutory designated sites within 7 km of the proposed development and twenty-six non-statutory designated sites within 2 km of the site, as follows:

Table 1. Statutory designated sites of nature conservation interest

Closest statutory site:			
Site name	**Designation**	**Distance and direction from proposed works (km)**	**Description**
Sherrard spark Wood	SSSI and LNR	0.28 W	Sherrardspark Wood is in the north west of Welwyn Garden City and is an ancient woodland consisting mainly of sessile oak (*Quercus petraea*) and hornbeam (*Carpinus*).
Other statutory sites: Eight further LNRs and one further SSSI are located between 2 km and 7 km from the proposed development site.			
Key (Refer to Appendix 5 for details): SSSI – Site of Special Scientific Interest LNR – Local Nature Reserve			

Table 2. Non-statutory designated sites of nature conservation interest

Closest non-statutory site:			
Site name	**Designation**	**Distance and direction from proposed works (km)**	**Description**
Dismantled Railway E. of Sherrardspark Wood	LWS	Directly adjacent to the northern border.	Dismantled railway route with bank supporting old, possibly ancient woodland. The woodland is dominated by hornbeam (*Carpinus betulus*) and Pedunculate oak (*Quercus robu*r).
Other non-statutory sites: Twenty-five further LWS are located between 0.8 km and 2 km from the proposed development site.			
Key (Refer to Appendix 5 for details):			

LWS – Local Wildlife Site

Historic Species Records

4.3 Local Ecological Records Centre data searches return hundreds of species records. The table below summarises records of key protected species considered to be most sensitive to impact from proposed developments. Numerous additional notable species records were returned for the 2 km radius, which are considered unlikely to be impacted by the proposed development and are therefore not summarised below. For instance, species for which no suitable habitat is present close to the site (see end of table).

Table 3. Existing protected species records

	Local Ecological Records Centre				**EPS Licences granted**
Species	**Number of records within 2 km**	**Closest record to site (km) and orientation***		**Most recent record**	**No. within 2 km**
		Campus West	**Town Centre North**		
Great crested newt (*Triturus cristatus*)	24	1.65 SE	1.55 WNW	2016	None
Common lizard (*Zootoca vivipara*)	4	0.76 SSW	0.9 S	1999	N/A
Slow-worm (*Anguis fragilis*)	12	0.31 NNE	0.41 ENE	2015	N/A
Grass snake (*Natrix helvetica*)	3	2.44 ESE	2.63 W	2015	N/A
Bat species (*Chiroptera* sp.)	234 records; 9 species	Common Pipistrelle (Pipistrellus pipistrellus), 0.3 WSW	Common Pipistrelle and unknown bat species, 0.1 N	Barbastelle (*Barbastella barbastellus*) Daubenton's Bat (*Myotis daubentonii*), Natterer's Bat (*Myotis nattereri*), Noctule Bat (*Nyctalus noctule*), Common Pipistrelle Soprano	Brown long-eared, common pipistrelle, 2014, destruction of resting place 1.8km NW

				Pipistrelle (Pipistrellus pygmaeus) 2017	
Dormouse (*Muscardinus avellanarius*)	4	0.9 WSW	0.72 SW	2008	None
Badger (*Meles meles*)	73	0.21 orientation confidential	0.2 Orientation confidential	2018	N/A
Hedgehog (*Erinaceus europaeus*)	35	0.58 SW	0.65 S	2015	N/A
No records were returned of the following key protected/notable species: Adder (*Vipera berus*)					
Records were returned of the following species (amongst others) but no suitable habitat is present close to the site: White-clawed Freshwater Crayfish (*Austropotamobius pallipes*), Otter (*Lutra lutra*), Water vole (*Arvicola amphibius*), Roman snail (*Helix pomatia*), Barn owl (*Tyto alba*)					

* Where the distance of records is further than the search radius, this is due to lack of accuracy in the record's coordinates. The true location of the record may be inside the search radius.

5 RESULTS OF HABITAT SURVEY

Habitats and Vegetation

5.1 A Phase 1 Habitat Plan can be found in Appendix 1 illustrating the habitats present. Photographs of the site are contained in Appendix 2.

Table 4. Habitats present within the site

Habitat type	Description	Dominant plant species	Overall biodiversity value*	Habitats of Principal Importance**	Additional Notes
Buildings, bare ground and hard standing	The majority of the site comprises hard standing. This includes car parks, roads and public amenity areas. Nine buildings of various sizes were located on the site. Small areas of bare ground were present.	None	Negligible, other than potentially for nesting birds	No	Bat roost and nesting bird potential are assessed in Table 5, below.
Amenity grassland	Moderate to small-sized areas of amenity grassland are present throughout the site. Many of these areas include scattered trees of varying sizes.	Too closely mown to identify.	Low	No	Potential nesting habitat for birds and roosting habitat for bats within trees.

Habitat type	Description	Dominant plant species	Overall biodiversity value*	Habitats of Principal Importance**	Additional Notes
Introduced shrubs	Small areas of the site are dominated by introduced shrubs. Such areas were generally neat and sparsely vegetated.	Lavender (*Lavandula*), pansies (*Viola tricolor var. hortensis*), cherry laurel (*Prunus laurocerasus*), honeysuckle *(Lonicera),* firethorn (*Pyracantha coccinea*), gorse *(Ulex)*, *cotoneaster sp*., rose (*Rosa sp*.), travellers joy (*Clematis vitalba*), buddleia (*Buddleja*)	Moderate	No	Provide a feeding resource for birds and invertebrates.
Trees and woodland	The site contains a high number of trees of various species and sizes these are sparsely spread out across the site with denser patches found on larger areas of amenity grassland. A large area of broadleaved woodland is present in the north of the Campus West section of the site. This woodland is connected to a large wildlife reserve.	Oak (*Quercus sp*.), sycamore *(Acer pseudoplatanus),* ash (*Fraxinus sp.),* snowberry *(Symphoricarpos),* conifer *(Pinophyta sp*), ivy *(Hedera),* holly *(Ilex)*, silver birch (*Betula pendula*)	High	Lowland Mixed Deciduous Woodland	The woodland within the north of Campus West provides potential habitat for a range of species, including mammals, amphibians, reptiles, birds and invertebrates. Individual trees have been assessed for potential for roosting bats (see Appendix 4).

Habitat type	Description	Dominant plant species	Overall biodiversity value*	Habitats of Principal Importance**	Additional Notes
Hedges	Small sections of well-maintained decorative hedges are present throughout the site.	Beech *(Fagus sylvatica)*	Low	Yes	Potential bird nesting habitat.
Dense/Scattered Scrub	The site includes small areas of dense scrub to the south of the Campus West section of the site and to the east of the Town Centre North section of the site.	Bramble *(Rubus fruticosus agg.)*	Moderate	No	Provides a feeding resources and potential nesting habitat birds and invertebrates.
Ditch	A ditch runs along the northern edge of the Town Centre North section of the site. See Appendix 1.	Nettle (*Urtica dioica)*	High	No	This ditch provides a wildlife corridor through the urban surroundings. At the time of surveying, after a period of heavy rainfall, this ditch contained standing water. It is considered highly likely that this ditch dries during periods of lower rainfall.

*Overall biodiversity value of a habitat is guided by the criteria listed in section 4.6 of the Guidelines for Ecological Impact Assessment (CIEEM, 2018), which include habitats required by rare or uncommon animal or plant species, habitat connectivity and species-rich assemblages of plants.

** Habitats of principal importance included in Section 41 of the NERC Act – for details see Appendix 5.

Protected/Notable Species Potential

5.2 Table 5, below, details the suitability of habitats within the site for key protected/notable species.

5.3 Species not detailed below are considered unlikely to be significantly impacted by the proposed works.

Table 5. Protected species potential

Species group	Strict Protection*	Species of Principal importance **	General habitat requirements	Suitable habitat within site
Great crested newt	Yes	Yes	Breed in ponds and other waterbodies. Terrestrial habitat includes woodland and grassland.	Much of the site is considered to be unsuitable for great crested newts as it comprises predominately hard standing and offers little to no shelter for newts. Areas of woodland along the northern border of the campus west section and vegetation along the ditch to the north of the town centre of the site may offer some potential for newts. Refer to Section 7 of this report.
Reptiles	Yes	Yes – all reptiles	Long grass, scattered scrub, hedgerows, rubble and log piles.	Scrub, woodland and hedgerow towards edges of site.

Species group	Strict Protection*	Species of Principal importance **	General habitat requirements	Suitable habitat within site
Bats	Yes	Yes – Several species	Roost in buildings, tree cavities, bridges and caves.	Mature trees scattered across the site, woodland areas to the north of the site and buildings throughout the site could provide potential roosting habitat for bats. Refer to Section 6 of this report.
Dormouse	Yes	Yes	Hedgerows, dense scrub, deciduous woodland with connected canopy and good ground flora.	Woodland along the north of Campus West provides potential habitat for dormice.
Water vole	Yes	Yes	Rivers, streams, wet ditches.	No suitable habitats
Otter	Yes	Yes	Rivers and lakes	No suitable habitats
Badger	Yes	No	Woodland, dense scrub, meadows, field edges.	No evidence of badgers was found during the survey, such as setts, footprints, latrines, feeding evidence or hairs. Badgers may be found in the wider landscape but the majority of the site is considered to offer low-value habitat for badgers due to its built-up nature and frequent human presence. Areas of woodland within the campus west section of the site may provide potential foraging habitat for badgers.
Hedgehog	No	Yes	Woodland, hedgerow, gardens, parks	The habitats within the site offer good foraging and sheltering habitats for hedgehogs.

Species group	Strict Protection*	Species of Principal importance **	General habitat requirements	Suitable habitat within site
Other invertebrates	No	Various	Species-dependent. High invertebrate diversity is favoured in sites with a mosaic of habitats and diverse plant assemblage.	Introduced shrubs throughout the site offer a variety of flowering plants as a feeding resource for invertebrates.
Nesting birds	While nesting	Various	Trees, shrubs, scrub, hedgerows, cavities within buildings, waterbodies, arable fields, bare/stony ground.	Scrub, shrubs, buildings and trees, particularly where vegetation is dense and undisturbed.
Invasive Plant Species	No	No	Species-dependent: Waste land, railway verges, river banks, waterbodies	*Cotoneaster sp,* snowberry, cherry laurel and buddleia were all present in shrub beds within the site.

*Strict Protection – species for which individuals and/or their habitats are protected against harm/destruction/disturbance by European or UK Law – for details see Appendix 5.

** Species of principal importance included in Section 41 of the NERC Act – for details see Appendix 5.

6 RESULTS OF BAT SCOPING ASSESSMENT

Buildings

6.1 Building names and locations are shown on the Phase 1 Habitat Plan (Appendix 1). Target Notes have been used to identify features such as potential bat access points. Full details of the Bat Scoping Survey findings are contained in Appendix 3, including building descriptions and inspection findings.

6.2 Roof voids are not the only area of a building that may be used by roosting bats. Bats often roost underneath roof tiles, inside cavity walls and amongst brickwork. In these locations, evidence of a bat roost may be concealed.

6.3 The garage buildings and the toilet block were assessed for bat roosting potential. The other buildings within the site were not assessed as they are not due to be impacted by the proposed development.

6.4 All areas where bats may roost in all buildings were accessed externally, except some internal areas of the garages, which could not be accessed fully due to a lack of access.

6.5 Both buildings were assessed as having **Negligible** potential for roosting bats, due to the absence of suitable roosting features.

Trees

6.6 There are a high number of trees within the site boundary. Not all trees within the site were assessed for bat roosting potential. Trees within the car park areas have been assessed as they are likely to be removed as part of the proposed works. All other trees have not been assessed individually (refer to Appendix 4 for details).

6.7 Tree dimensions, inspection notes and recommendations for each tree are listed in Appendix 4 of this report. Please note not all trees have been individually plotted, and therefore are not shown within the schedule.

Foraging and commuting habitat

6.8 The location of the site and the surrounding area is considered to be of moderate value for commuting and foraging bats. The wider landscape contains a variety of habitats including a large woodland, landscaped areas and hedgerows. It is expected

that a variety of bat species may be found in the local area. It is likely that foraging or commuting bats use the site itself to a certain extent.

7 RESULTS OF GCN HSI ASSESSMENT

7.1 Great crested newts breed within ponds but spend the majority of the year on land in habitats such as woodland, scrub and rough grassland. Newts may typically disperse up to 500 m from their breeding ponds. During the winter months, newts hibernate amongst habitats such as log piles, rubble and tree roots.

7.2 Four ponds were identified within 500 m of the proposed development using aerial photography, OS maps and ground-truthing.

7.3 Two of these ponds, located 136 m south and 266 m north-east appear to be water fountains surrounded by hard standing and unsuitable for amphibians. Therefore, it was not considered necessary to assess these waterbodies.

7.4 An additional two ponds were located in close proximity to each other around 300 m north-east of site and separated from the site by large areas of hard standing. It was considered unnecessary to assess these ponds as newt dispersal from these ponds into the proposed development site is considered unlikely based on the distance of these ponds from the proposed development site and the lack of suitable habitat between these ponds and the proposed development site.

7.5 The habitat on-site is considered to be of low suitability for great crested newts due to the built-up nature of the site. The woodland and ditch to the north of the site could offer some refuge, however given the built-up nature of the site, it is considered unlikely that great creased newts will be present.

8 CONCLUSIONS AND RECOMMENDATIONS

8.1 For any constraints identified, mitigation options should follow the Mitigation Hierarchy as set out in British Standard BS42020 (BSI, 2013). This seeks as a preference to avoid impacts than to mitigate unavoidable impacts, and, as a last resort, to compensate for unavoidable residual impacts that remain after avoidance and mitigation measures.

Overall Ecological Value

8.2 The majority of the site is comprises of hard standing and buildings which offer limited to no ecological value. Within the site, areas of introduced shrub may offer some foraging resources for invertebrates and birds. Mature trees throughout the site may offer value for birds and some mammal species. An area of woodland along the northern border of the Campus West section of the site provides high ecological value and a ditch running along the north of the Town Centre North section of the site may provide a biodiversity corridor.

Designated sites

8.3 Eleven statutory designated sites of nature conservation interest are located between 0.2 km and 7 km of the proposed development site. The scale of the proposed development would not be expected to impact any statutory designated sites of wildlife conservation interest.

8.4 The proposed development site is located directly adjacent to ‘Dismantled Railway E. of Sherrardspark Wood’ Local Wildlife Site which connects to Sherrardspark Wood SSSI and LNR. As the details and layout of the proposed development are not currently known, it is not possible to provide a detailed assessment of the anticipated impact of the development on the woodland. The woodland is already managed for use as a public recreational space.

8.5 Recommendation: The woodland should be retained and protected from any impacts arising from the proposed development. Should the development be likely to result in an increase in recreational use of the woodland, it may be appropriate for the development to contribute to the management of public access, in order to avoid a detrimental impact on the woodland habitats.

Habitats of Principal Importance

8.6 The following habitats within or adjacent to the proposed development site are listed as Habitats of Principal Importance under Section 41 of the NERC Act. (Refer to Appendix 5). These habitats are considered to be of importance in the UK and should be retained within the development and enhanced wherever possible.

Lowland Mixed Deciduous Woodland

8.7 An area of oak-dominated woodland is present to the north of the Campus West section of the site. This is connected to a large woodland (Dismantled Railway E. of Sherrardspark Wood LWS) which comprises a similar habitat. See section 8.4 for more details.

8.8	Recommendation: The area of woodland should be retained and protected as part of the proposed development.

Hedgerow

8.9 Small areas of hedgerow are present throughout the development site.

Other Notable Habitats

8.10 The following habitats are not classed as Habitats of Principal Importance, but nevertheless are considered to be of notable biodiversity value in the context of the site and its surroundings:

Trees (if retained on site)

8.11 Mature trees are present throughout the site.

8.12	Recommendation: Trees should be retained or replaced within the development site where possible. Tree protection areas and methods should be advised by a suitably qualified arboricultural consultant.

Ditch

8.13 A ditch runs along the northern boundary of the Town Centre North section of the site. This provides a potential biodiversity corridor.

8.14	Recommendation: The ditch should be retained within the proposed development and protected from impacts arising from the proposed development.

Protected Species

8.15 The following species are protected against harm/destruction/disturbance by European or UK Law – for details see Appendix 5.

Great crested newts

8.16 Great crested newts have previously been recorded as close as 1.55 km from the proposed development site. However, the site is largely surrounded by urban development.

8.17 The existing habitats within the development footprint itself comprise mostly buildings, hard standing and short-mown amenity grassland. As such, great crested newts (if present) would not be expected to be found sheltering within these habitats, although they may occasionally cross them. Areas of woodland along the north of the site may provide some potential shelter.

8.18 Recommendation: To avoid possible impact on great crested newts, if present, woodland vegetation to the north of Campus West and the ditch along the north of Town Centre North should be retained within the proposed development.

Reptiles

8.19 Slow-worm, common lizard and grass snake have all been previously recorded within 2 km of the site. The woodland and scrub habitats within the Campus West section of the site offer some limited habitat for reptiles, particularly slow-worms.

8.20 Recommendation: To avoid an impact on reptiles, woodland vegetation to the north of Campus West should be retained within the proposed development.

8.21 To avoid an impact on reptiles, if the scrub vegetation in the Campus West section of the site of (e.g. bramble) is due to be removed it should be strimmed carefully, using hand tools, in two phases, as follows:

- The habitat should be strimmed outwards toward the site boundary, to flush any reptile species into the adjacent habitats.
- The first pass should be cut to a height of no less than 150 millimetres. After the first strim, the area should be left for two days to allow any remaining animals to move into surrounding habitats.
- The second phase should be cut down to ground level under ecological supervision.

- Any sheltering places such as log piles or animals' burrows must be dismantled by hand under ecological supervision, to remove any reptiles present.
- This approach can only be undertaken between March and October inclusive (when temperatures are not below 10oC) when reptiles are active of the site should be retained within the proposed development.
- Additionally, during the construction process, it is recommended that storage of rubble, soil and other materials close to the periphery of the site should be avoided.

Roosting bats - buildings

8.22 All species of bat are legally protected from disturbance or harm and their roosts are protected from damage or destruction (see Appendix 7 for details).Two buildings within the site were assessed for roosting bats – the garages and toilet block as these are due to be impacted by the proposed development.

8.23 Both buildings have been assessed as having **Negligible** potential for roosting bats. It is considered unlikely that bats will be impacted development to these buildings and no further surveys or mitigation are recommended.

Roosting bats - trees

8.24 Trees within the carparks of the site have been assessed for their potential for roosting bats as these are due to be impacted by the proposed development.

8.25 These trees have been assessed as having **Negligible** potential to support bats, due to the absence of features such as cracks, crevices or dense ivy growth. These trees can be removed if needed without risk to roosting bats.

8.26 Appendix 4 shows additional trees which have been assessed.

8.27 Recommendation: All other trees within the site have not been assessed. If additional trees are due to be impacted by the development, it is recommended that a ground level bat roost assessment survey is undertaken.

Foraging and commuting bats

8.28 Due to the habitats present within the site and the local landscape, it is considered likely that foraging or commuting bats use the site to a certain extent, particularly within the woodland in Campus West and the north of Town Centre North.

8.29 The foraging and commuting behaviour of bats is known to be altered by artificial lighting and bats may avoid illuminated areas (ILP, 2018).

8.30 Recommendation: To avoid a detrimental impact on bats using the site, there should be no increased light spillage on to suitable habitats, particularly on the periphery of the site, where bats are most likely to forage and commute. Lighting should be restricted to the interior of the site and should be kept to a low level. The following measures should be implemented within the lighting scheme:

- Minimise light spill, through use of lighting hoods, and setting the height and angle appropriately;
- Reduce the light intensity to the minimum required for safety and security;
- Set lighting curfews, e.g. lights off at night
- Where security lamps are used these should use a trigger to illuminate them (e.g. infra-red detector), and switch off after a short period, rather than remaining on all night.
- UV lighting should be avoided.
- LED luminaires should be used where possible due to their sharp cut off, lower intensity and dimming capacity.
- Further guidance is available in Bats and artificial lighting in the UK (ILP, 2018).

Dormice

8.31 Dormice have previously been recorded 0.72 km from the proposed development site. Due to the limited extent of suitable habitats present dormice are considered unlikely to be present, however woodland present along the northern boundary of the Campus West section of the site may provide some potential habitat.

8.32 Recommendation: To avoid possible impact on dormice (if present), woodland vegetation to the north of Campus West should be retained within the proposed development.

Water Vole and Otter

8.33 No habitat suitable for water voles or otters is present within or adjacent to the site. The proposed development is considered unlikely to impact these species and no further surveys are recommended.

Badger

8.34 Due to the lack of evidence of badgers within the site, the proposed development is considered unlikely to impact badgers and no further surveys or mitigation are recommended.

Invertebrates

8.35 Due to the common habitats present within the site, it is considered unlikely that the proposed works will significantly impact important populations of invertebrates. Section 9 of this report includes measures to enhance the development for invertebrates.

Nesting birds

8.36 The site includes buildings, trees, scrub and hedgerows, all of which are suitable for nesting birds during the nesting season (typically March to August inclusive).

8.37 Recommendation: To avoid destruction of active bird nests, it is recommended that building demolition and vegetation removal is only undertaken outside the bird nesting season. Building demolition and vegetation removal may only be undertaken during the nesting season if a careful check by a suitably experienced ecologist can confirm that no active bird nests are present. If bird nests are present within buildings or vegetation to be removed, they must be left in place and not disturbed until all the young have fledged and cease to return to the nest.

8.38 The typical nesting season for birds (March to August) coincides with the majority of the active season for reptiles (March to September, weather dependent). When removing habitats where both may be present, careful timing is required to avoid impacting active bird nests whilst also protecting reptiles from killing or injury. Ideally, dense vegetation should be removed in September, when birds have largely finished nesting, but reptiles are still active and are therefore at lower risk of harm. Ground clearance should be undertaken under the supervision of a suitably experienced ecologist to minimise the risk of harm to reptiles. Alternatively, vegetation should be removed down to 15 cm height during the winter (October to February) to remove bird nesting habitat, and then cleared completely to ground level or below during the summer (March to September), when reptiles are active. This phased timing minimises the risk to both reptiles and nesting birds.

Other Species

Hedgehog

8.39 The site includes habitats suitable for hedgehogs to be present. Whilst not a strictly protected species, the hedgehog is listed as a Species of Principal Importance (see Appendix 5) and measures should be made to protect and encourage hedgehog populations.

8.40 Recommendation: Care should be taken when removing scrub/shrub vegetation to avoid harm to hedgehogs which may be present. Once vegetation has been removed to a height of 150-300 mm, it should be checked by a member of site staff to ensure that no hedgehogs are present. If any hedgehogs are present, they may be moved to suitable habitat nearby. Section 9 of this report includes measures to enhance the development for hedgehogs.

Rabbit

8.41 A disused rabbit burrow is present in the campus west section of the site (see Appendix 1). Although not protected by conservation legislation, rabbits are covered by the Wild Mammals (Protection) Act 1996, which prevents crushing of mammal species (amongst other offences).

8.42 Recommendation: As this burrow is disused no further actions are required, however if further burrows are located during the development the entrances for the burrows should not be crushed or blocked. If it is necessary to remove burrows from the site,

it is recommended that any burrows are excavated using hand tools until the absence of rabbits can be verified.

Invasive Species

Invasive plant species

8.43 Cotoneaster species, snowberry, cherry laurel and buddleia were all recorded within scrub vegetation across the site (see target notes, Appendix 1).

8.44 A number of *Cotoneaster* species are listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) as invasive plant species. It is prohibited to plant or otherwise cause these species to grow in the wild.

8.45 Snowberry, cherry laurel and buddleia are not listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) as legally-controlled invasive plant species, but are known to be invasive in some circumstances (Natural England, 2011).

8.46 Recommendation: These plants are unlikely to cause problems in their current location within the site, but their spread should be avoided. If removal of these plants is required as part of the works, they should be disposed of responsibly (e.g. mulching, burning on site or removal to landfill) so that the plants cannot spread.

9 OPPORTUNITIES FOR BIODIVERSITY ENHANCEMENT

9.1 In accordance with the National Planning Policy Framework, recommended opportunities for biodiversity enhancement (above and beyond those required to mitigate for the identified impacts) are set out below. The below recommendations may not all be feasible within the final development and alternative enhancements should also be considered.

Pond

9.2 If feasible, a new pond may be included in the proposed development. Ponds create a significant habitat enhancement for a wide range of wildlife including plants, invertebrates, amphibians, reptiles, bats and birds. Ponds also help with flood water retention. Ponds should include at least one shallow-sloped bank and should include a variety of wildlife-friendly planting (either planted or naturally colonising).

Tree and shrub planting

9.3 Wherever possible, additional tree and shrub planting is recommended within the site which will increase connectivity for dispersing wildlife including bats, birds and invertebrates. Native species should be used within planting schemes. Tree species such as blackthorn (*Prunus spinosa*), crab apple (*Malus sylvestris* sens.str), elder (*Sambucus nigra*), field maple (*Acer campestre*), hawthorn (*Crataegus monogyna*), honeysuckle (*Lonicera periclymenum*), holly (*Ilex aquifolium*) and English oak (*Quercus robur*) could be used to provide known benefit to wildlife. Shrub planting should include a variety of species found on the Royal Horticultural Society's 'Plants for Pollinators' lists, such as lavender (*Lavandula* species), knapweeds (*Centaurea* species), guelder rose (*Viburnum opulus*), barberry (*Berberis species*) and honeysuckle (*Lonicera peridymenum*).

Grassland planting

9.4 Wherever possible, areas of informal 'meadow' grassland should be included, seeded with a species-rich wildflower grassland mix to provide foraging opportunities, particularly for pollinating invertebrates. Areas of longer informal grassland also offer shelter for reptiles, amphibians and small mammals. Recommended grassland species are included in the Royal Horticultural Society's 'Plants for Pollinators' lists.

Bird boxes (general)

9.5 Installation of bird boxes increases nesting opportunities for bird species. A variety of bird box designs are available, for installation on existing mature trees, on external

building walls, or to be in-built into the structure of new buildings. Bird boxes should be installed at least 2 m in height facing north and east, thus avoiding strong sunlight and wet winds.

House sparrow nest boxes

9.6 The house sparrow (*Passer domesticus*) is an iconic species whose populations have faced steep declines in recent decades. It is recommended that 'sparrow terraces' are installed on the building. Boxes are available which are designed to be incorporated into the fabric of a building as it is built and are both unobtrusive and aesthetically pleasing. Boxes should be installed between 2 and 5 m above ground, preferably avoiding areas that are exposed to strong sunlight or prevailing winds. Siting boxes close to vegetation is helpful for young birds taking their first flights.

Bat boxes

9.7 The inclusion of bat boxes provides new roost sites for bats within the local area. A variety of bat box designs are available, for installation on existing mature trees, on external building walls, or to be in-built into the structure of new buildings. Bat boxes should be located in sheltered spots away from artificial lighting and placed at a height of at least 3 metres from the ground, ideally facing south.

Log Piles

9.8 To enhance the site for invertebrates such as the stag beetle (*Lucanus cervus*), it is recommended that log piles, 2 m width/length and 1 m in height, are created in shaded and undisturbed locations, within the site.

10 REFERENCES

- British Standards Institution (2013). BS42020 – Biodiversity – Code of practice for planning and development.
- CIEEM (2017). *Guidelines for Preliminary Ecological Appraisal*, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Chartered Institute of Ecology and Environmental Management, Winchester
- Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London.
- Institution of Lighting Professionals (2018). Bats and artificial lighting in the UK. Guidance Note 08/18.
- Institute of Ecology and Environmental Management (2006). Guidelines for Ecological Impact Assessment in the United Kingdom.
- Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey. A technique for environmental audit.
- Ministry of Housing, Communities and Local Government (2019). National Planning Policy Framework.
- Natural England (2011). Horizon-scanning for invasive non-native plants in Great Britain. Natural England Commissioned Report NECR053.
- Office of the Deputy Prime Minister (ODPM) (2005). Circular 06/2005: Biodiversity and geological conservation – Statutory obligations and their impact within the planning system.
- Oldham, R.S., Keeble, J., Swan, M.J.S. & Jeffcote, M. (2000). Evaluating the suitability of habitat for the Great crested Newt (*Triturus cristatus*). Herpetological Journal 10 (4), 143-155.
- Royal Horticultural Society (no date). Plants for Pollinators – Garden Plants. rhs.org.uk/plantsforpollinators

11 APPENDICES

Appendix 1- Habitat Plan

Appendix 2- Photographs

Appendix 3– Bat Scoping Assessment (Buildings)

Appendix 4– Bat Scoping Assessment (Trees)

Appendix 5- Wildlife Law and Planning Policy

Appendix 1 - Habitat Plan

Target Note	Description
2	Rabbit burrow.
14	Mature oaks present within this habitat.
15	Mature oaks present within this habitat.
17	Mature oaks present within this habitat.
20	Trees within the car park have been assessed as having negligible potential for roosting bats

Campus West

Library

TN15

TN20

G4

TN14

TN2

TN17

GARDEN CITY

Site overview

Sherrardspark

Peartree

0 10 20 40 Metres

Legend

- Boundary
- TargetNote
- TreeGroup
- Building
- Standing water
- Intact hedge - species-poor
- Defunct hedge - species-poor
- Broadleaved woodland - semi-natural
- Scrub - dense/continuous
- Amenity grassland
- Introduced shrub
- Defunct hedge - species-poor
- Hedge with trees - species-poor
- Hardstanding
- Bare ground

Drawing title:
Phase 1 Plan

Project Name:
Campus West and Town Centre North

Date	Drawn by	Check by
08/01/2020	BP	-

Drawing No	Rev	Scale
191026-EC-01.1	-	1:800

The original of this drawing was produced in colour -a monochrome copy should be relied upon

TIM MOYA ASSOCIATES
The Barn, FellimoresPark, Chalk Lane,Harlow, Essex CM17 0PF
0845 094 3268 | info@tma-consultants.co.uk
www.timmoyaassociates.co.uk

arboriculture ecology landscape innovation

Target Note	Description
1	Snowberry.
3	Snowberry.
4	Cotoneaster sp.
5	Trees overhanging from neighbouring garden, inspection limited.
6	Electric station with bare ground.
9	Buddleia.
10	Private garden - Not surveyed.
11	Mature oaks present within this habitat.
12	Mature oaks present within this habitat.
13	Mature oaks present within this habitat.
18	Ditch with terrestrial vegetation but holding water at time of survey, after heavy rainfall
19	Trees within the car park have been assessed as having negligible potential for roosting bats

TN18
G3
TN5
G1
TN10
TN19
TN4
TN3
TN11
Garages and roof car park
TN12
TN13
District Council Offices
TN6
District Council Offices
Bus shelter
G2
Toilet block
Multistory car park
TN9
TN1
Shops

GARDEN CITY
Site overview
Sherrardspark
Peartree

0 20 40 80 Metres

Legend

- Boundary
- TargetNote
- TreeGroup
- Standing water
- Intact hedge - species-poor
- Defunct hedge - species-poor
- Building
- Scrub - dense/continuous
- Amenity grassland
- Introduced shrub
- Intact hedge - native species-rich
- Intact hedge - species-poor
- Defunct hedge - species-poor
- Hedge with trees - species-poor
- Hardstanding
- Bare ground

Drawing title:
Phase 1 Plan

Project Name:
Campus West and Town Centre North

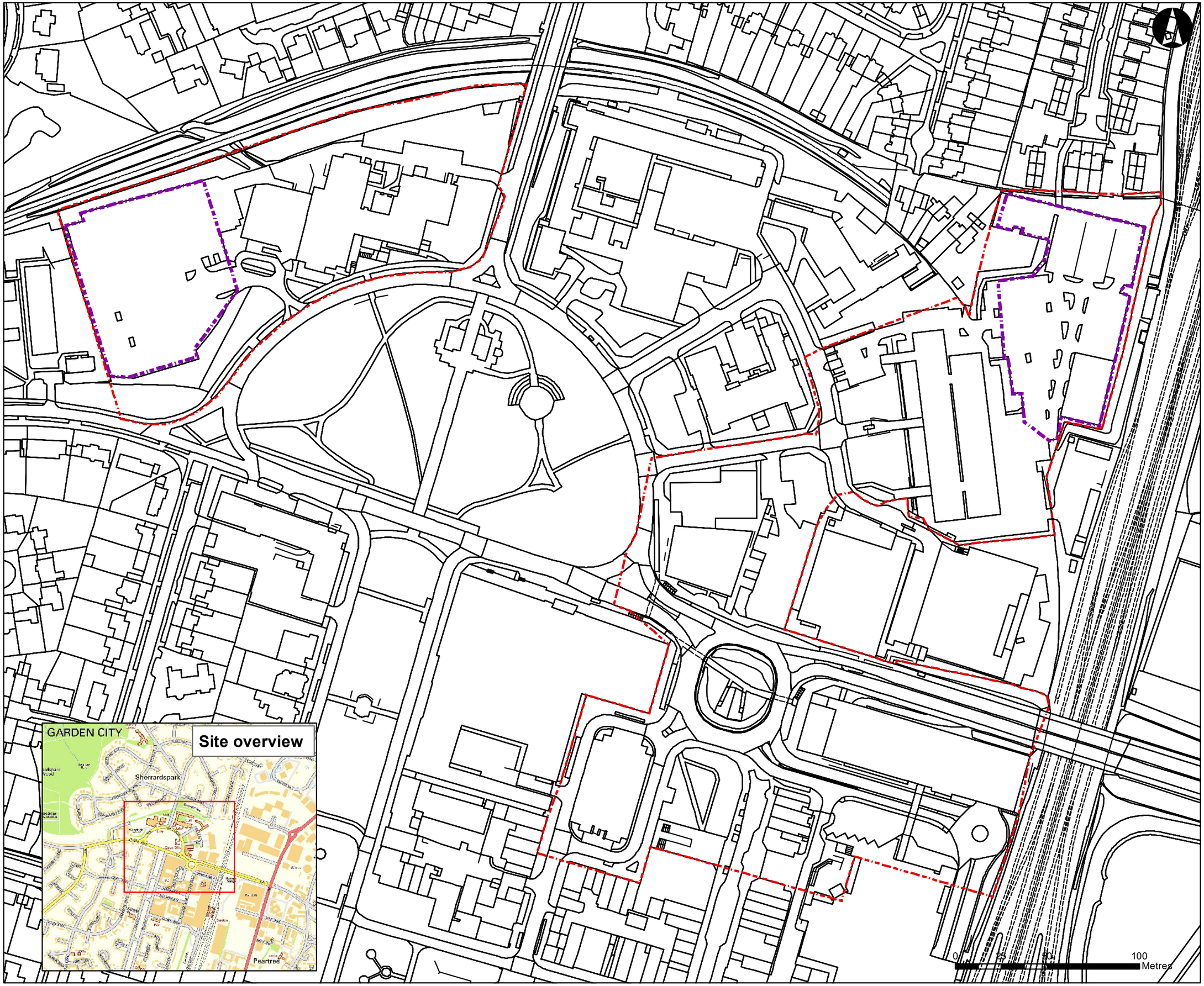
Date	Drawn by	Check by
08/01/2020	BP	-

Drawing No	Rev	Scale
191026-EC-01.2	-	1:1,400

The original of this drawing was produced in colour -a monochrome copy should be relied upon

TIM MOYA ASSOCIATES
The Barn, FellimoresPark, Chalk Lane,Harlow, Essex CM17 0PF
0845 094 3268 | info@tma-consultants.co.uk
www.timmoyaassociates.co.uk

arboriculture ecology landscape innovation



Legend

- Boundary
- Tree Assessment Zone

**Trees within the tree assessment zone's have been assessed for bat roosting potential*

Drawing title:
Tree Assessment Zone Plan

Project Name:
Campus West and Town Centre North

Date	Drawn by	Check by
08/01/2020	BP	-

Drawing No	Rev	Scale
191026-EC-10	-	1:1,838

The original of this drawing was produced in colour -a monochrome copy should be relied upon

TIM MOYA ASSOCIATES
The Barn, FellimoresPark, Chalk Lane,Harlow, Essex CM17 0PF
0845 094 3268 | info@tma-consultants.co.uk
www.timmoyaassociates.co.uk
arboriculture ecology landscape innovation

Appendix 2 - Photographs

Photo 1 – Campus west north main building and entrance.	Photo 2 – Carpark in Campus West North.
	
Photo 3 – Amenity grassland within Campus West.	Photo 4 – Woodland along the northern boundary of Campus West.
	
Photo 5 – Nature reserve along the northern boudary.	Photo 6 – Nature reserve along the northern boundary.
	

Photo 7 – Amenity grassland to the south of Town Centre North.	Photo 8 – Car park in north of Town Centre North.
	
Photo 9 – Mature trees present throughout site.	Photo 10 – Amenity grassland areas.
	
Photo 11 – Toilet block, assessed for bat potential.	Photo 12 – Inside toilet block.
	

Photo 13 – Garages assessed for bat roosting potential.	Photo 14 – Interior of garages.
	

Appendix 3 – Bat Scoping Assessment (Buildings)

Bat Building Assessment Summary

TIM MOYA ASSOCIATES

191026 - Campus West and Town Centre North

191026ED-11

Object ID REF	Storeys	Use of Building	Roof type Condition	Materials	Cellars	Chimneys	Roof void present	Bats evidence	Bat roost potential	Hibernation pot.	Internal Inspection	Potential bat access points Potential bat roost features	Ecological notes	Recommendations	Survey date
1 Campus West			null	Roof external: Roof internal: Wall:									Building not assessed for bat roosting potential.	- Inaccessible areas/features yet to inspect- If the building is due to be impacted by the proposed works a bat scoping assessment should be carried out. This can be undertaken at any time of year. The survey may result in the recommendation of additional nocturnal surveys.	16/12/2019
2 Library			null	Roof external: Roof internal: Wall:									Building not assessed for bat roosting potential.	- Inaccessible areas/features yet to inspect- If the building is due to be impacted by the proposed works a bat scoping assessment should be carried out. This can be undertaken at any time of year. The survey may result in the recommendation of additional nocturnal surveys.	16/12/2019
3 District Council Offices			null	Roof external: Roof internal: Wall:									Building not assessed for bat roosting potential.	- Inaccessible areas/features yet to inspect- If the building is due to be impacted by the proposed works a bat scoping assessment should be carried out. This can be undertaken at any time of year. The survey may result in the recommendation of additional nocturnal surveys.	
4 District Council Offices			null	Roof external: Roof internal: Wall:									Building not assessed for bat roosting potential.	- Inaccessible areas/features yet to inspect- If the building is due to be impacted by the proposed works a bat scoping assessment should be carried out. This can be undertaken at any time of year. The survey may result in the recommendation of additional nocturnal surveys.	

Bat roost and Hibernation potential

C - Confirmed H - High M - Moderate L - Low N - Negligible

Generated By MyTREES tree management software

191026 - Campus West and Town Centre North

191026ED-11

Object ID REF	Storeys	Use of Building	Roof type Condition	Materials	Cellars	Chimneys	Roof void present	Bats evidence	Bat roost potential	Hibernation pot.	Internal Inspection	Potential bat access points Potential bat roost features	Ecological notes	Recommendations	Survey date
5 Multistory car park			null	Roof external: Roof internal: Wall:									Building not assessed for bat roosting potential.	- Inaccessible areas/features yet to inspect- If the building is due to be impacted by the proposed works a bat scoping assessment should be carried out. This can be undertaken at any time of year. The survey may result in the recommendation of additional nocturnal surveys.	
6 Shops			null	Roof external: Roof internal: Wall:									Building not assessed for bat roosting potential.	- Inaccessible areas/features yet to inspect- If the building is due to be impacted by the proposed works a bat scoping assessment should be carried out. This can be undertaken at any time of year. The survey may result in the recommendation of additional nocturnal surveys.	
7 Bus shelter			null	Roof external: Roof internal: Wall:									Building not assessed for bat roosting potential.	- Inaccessible areas/features yet to inspect- If the building is due to be impacted by the proposed works a bat scoping assessment should be carried out. This can be undertaken at any time of year. The survey may result in the recommendation of additional nocturnal surveys.	
8 Garages and roof car park	1	Garages with car park on roof	Flat Good	Roof external: tarmac Roof internal: concrete Wall: concrete	N	0	N	N	N	N	Limited	Door - gaps around doors	14 out of 156 garages inspected with car park on roof. Roosting features were limited to gaps between mortar of brick work. Damp and cool structure. Given its urban environment and limited roosting features it is unlikely to support bats.	- No further surveys required -	18/12/2019

Bat roost and Hibernation potential

C - Confirmed H - High M - Moderate L - Low N - Negligible

Generated By MyTREES tree management software

191026 - Campus West and Town Centre North

191026ED-11

Object ID REF	Storeys	Use of Building	Roof type Condition	Materials	Cellars	Chimneys	Roof void present	Bats evidence	Bat roost potential	Hibernation pot.	Internal Inspection	Potential bat access points Potential bat roost features	Ecological notes	Recommendations	Survey date
9 Toilet block	1	Toilet block	Flat Good	Roof external: unknown - covered in vegetation Roof internal: plaster board Wall: brick	N	0	N	N	N	N	Yes		Small acess points limited to areas of ivy damage. No suitable features internally. Some gaps in brickwork internally. Roof covered by dense vegetation	- No further surveys required -	16/12/2019

Bat roost and Hibernation potential

C - Confirmed H - High M - Moderate L - Low N - Negligible

Generated By MyTREES tree management software

Appendix 4 – Bat Scoping Assessment (Trees)

TIM MOYA ASSOCIATES

191026 - Campus West and Town
191026-ED-12

Tree No.	Species	Tree/Tree group	BCT Category (explanation at end of schedule)	Notes	Ecological Recommendations
1	Fraxinus sp. Ash sp. Acer pseudoplatanus Sycamore	TreeGroup		Boundary of private property and cannot be fully inspected for bat roosting potential.	If due to be removed these trees must be subject to a bat scoping inspection
2	Acer pseudoplatanus Sycamore Fraxinus sp. Ash sp. Quercus sp. Oak sp.	TreeGroup		Trees have not been individually assessed for bat roost potential.	If due to be removed these trees must be subject to a bat scoping inspection
3	Cupressus sp. Cypress sp.	TreeGroup		Trees have not been individually assessed for bat roost potential.	If due to be removed these trees must be subject to a bat scoping inspection
4	Cupressus sp. Cypress sp.	TreeGroup		Trees have not been individually assessed for bat roost potential.	If due to be removed these trees must be subject to a bat scoping inspection

Bat Potential

Negligible - Negligible habitat features on site likely to be used by roosting bats.

Low - A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.

Moderate - A tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.

High - A 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.

Roost - A known or confirmed bat roost.

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

Soft-fell method

For some trees (see above), it is recommended that a precautionary 'soft-fell/prune' method is used in order to minimise the risk of harm to bats, as follows:

1. During felling/ pruning, trees or limbs must be lowered carefully to the ground using ropes.
2. If any cracks or fissures are observed, cross-cutting these features must be avoided.
3. Trees and limbs must left on the ground for 24 hours, to allow any bats to escape if present, although this is considered unlikely.

Appendix 5 - Wildlife Law and Planning Policy

Statutes and English Law

Reptiles

All species of native reptiles are protected against killing or injury under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). The sand lizard (*Lacerta agilis*) and smooth snake (*Coronella austriaca*) are further protected under The Conservation of Habitats and Species Regulations 2017 against capture or disturbance and the places they use for breeding, resting, shelter and protection are protected from being damaged or destroyed.

Great Crested Newts

The great crested newt and its habitat are protected under the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017. This legislation makes it an offence to deliberately kill, injure or capture a great crested newt; deliberately disturb a great crested newt; damage, destroy or obstruct access to a structure used for shelter or protection by a great crested newt; or possess or transport a great crested newt.

Bats

All species of bat and their breeding sites or resting places (roosts) are protected under Regulation 41 of The Conservation of Habitats and Species Regulations 2017 and Section 9 of the Wildlife and Countryside Act 1981. It is an offence for anyone intentionally to kill, injure or handle a bat, to possess a bat (whether live or dead), disturb a roosting bat, or sell or offer a bat for sale without a licence. It is also an offence to damage, destroy or obstruct access to any place used by bats for shelter, whether they are present or not.

Badgers

Badgers and their setts are protected under the Protection of Badgers Act 1992 which makes it an offence to kill, injure or possess a badger; interfere with, damage or destroy a badger sett including obstructing access to a badger sett; cruelly treat or harm a badger; or disturb a badger in a sett.

Otters

Otters and their resting places are protected under the Wildlife and Countryside Act 1981 (as amended) and the The Conservation of Habitats and Species Regulations 2017. This legislation makes it an offence to deliberately kill, injure or capture an otter;

deliberately disturb an otter in their breeding or resting places; damage, destroy or obstruct access to their resting or breeding places.

Water Voles

Water voles are protected under the Wildlife and Countryside Act 1981 (as amended) from killing or taking by certain prohibited methods. Their breeding and resting places are fully protected from damage, destruction or obstruction; it is also an offence to disturb them in these places.

Dormice

Hazel dormice are protected under both the The Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981 (as amended). Dormice and their breeding sites and resting places are fully protected. Without a licence it is an offence for anyone to deliberately disturb, capture, injure or kill them. It is also an offence to damage or destroy their breeding or resting places, to disturb or obstruct access to any place used by them for shelter. It is also an offence to possess, or sell a wild dormouse.

Birds

All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to kill, injure or take wild birds; take, damage or destroy the nest of wild birds while it is in use or being built; or take or destroy the eggs of wild birds.

Certain bird species are listed on Schedule 1 of The Wildlife and Countryside Act 1981 (as amended). Under this legislation they are afforded the same protection as all wild birds and are also protected against **disturbance** whilst building a nest, or on or near a nest containing eggs and or unfledged young.

Invasive Plant Species

It is prohibited to plant or otherwise cause to grow in the wild any species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). The Environmental Protection Act 1990 also classifies certain invasive plants as controlled waste which must be disposed of safely at an appropriately licensed landfill site (e.g. Japanese knotweed).

Under section 57 of the Anti-social Behaviour, Crime and Policing Act 2014, if an individual or an organisation fails to control an invasive plant species which is having a detrimental effect on the quality of life of those in the locality. A notice can be issued

after a mandatory written warning has been served. Breach of this notice, without reasonable excuse, would be a criminal offence, subject to fixed penalty notice (a penalty of £100) or prosecution. On summary conviction an individual could be liable to a level 4 fine and an organisation (e.g. a company) could be liable to a fine not exceeding £20,000.

Planning Policy

In addition to the statutes described above, various planning policy imposes duties upon planning applicants to take account of protected species and habitats at sites of proposed development and in particular, protected species. The objective of this policy is to prevent a net loss of species and habitats diversity identified as priorities for the U.K. as a consequence of development activity.

National Planning Policy Framework (NPPF)

The National Planning Policy Framework is clear that pursuing sustainable development includes moving from a net loss of biodiversity to achieving net gains for nature, and that a core principle for planning is that it should contribute to conserving and enhancing the natural environment and reducing pollution.

Planning policies should promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations. If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.

Natural Environment and Rural Communities Act (NERC Act)

Section 40 of the Natural Environment and Rural Communities Act 2006 places a duty on all public authorities in England and Wales to have regard, in the exercise of their functions, to the purpose of conserving biodiversity.

Priority Habitats and Species

Priority habitats and species are defined (NPPF, 2018) as ‘Species and Habitats of Principle Importance included in the England Biodiversity List published by the Secretary of State under Section 41 (S41) of the Natural Environment and Rural Communities Act 2006 (NERC Act)’. The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their

duty under the NERC Act, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

Fifty-six **habitats** of principal importance are included on the S41 list. These are all the habitats in England that were identified as requiring action in the UK Biodiversity Action Plan (UK BAP) and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework. They include terrestrial habitats such as upland hay meadows to lowland mixed deciduous woodland, and freshwater and marine habitats such as ponds and subtidal sands and gravels.

There are 943 **species** of principal importance included on the S41 list. These are the species found in England which were identified as requiring action and which continue to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework. In addition, the Hen Harrier has also been included on the list because without continued conservation action it is unlikely that the Hen Harrier population will increase from its current very low levels in England.

ODPM Circular 06/2005

This Government Circular entitled 'Biodiversity and Geological conservation – Statutory obligations and their impact within the planning system' (ODPM, 2005) provides administrative guidance on the application of the law relating to planning and nature conservation as it applies in England.

The potential effects of a development, on habitats or species listed as priorities under Section 41 of the NERC Act, and by Local Biodiversity Partnerships, together with policies in the England Biodiversity Strategy, are capable of being a material consideration in the preparation of regional spatial strategies and local development documents and the making of planning decisions.

The presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat. It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision. The need to ensure ecological surveys are carried out should therefore only be left to coverage under planning conditions in exceptional circumstances, with the result that the surveys are carried out after planning permission has been granted. However, bearing in mind the delay and cost that may be involved, developers should not be required to undertake surveys for protected species unless there is a

reasonable likelihood of the species being present and affected by the development. Where this is the case, the survey should be completed and any necessary measures to protect the species should be in place, through conditions and/or planning obligations, before the permission is granted.

Statutory and Non-Statutory Sites

Name	Statutory/Non-statutory	Definition
SAC – Special Area of Conservation	Statutory	Strictly protected sites designated under the EC Habitats Directive, that will make a significant contribution to conserving habitats or species identified in Annexe I and II of the Directive (as amended).
SPA – Special Protection Area	Statutory	Strictly protected sites classified in accordance with Article 4 of the EC Birds Directive. They are classified for rare and vulnerable birds (as listed on Annex I of the Directive).
SSSI – Site of Special Scientific Interest	Statutory	SSSIs provide statutory protection for the best examples of the UK's flora, fauna, or geological or physiographical features.
NNR – National Nature Reserve	Statutory	NNRs contain examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats or to provide opportunities for scientific study.
LNR – Local Nature Reserve	Statutory	LNRs are declared and managed for nature conservation, and provide opportunities for research and education, or simply enjoying and having contact with nature.
Ramsar – Ramsar Site	Statutory	Ramsar sites are wetlands of international importance designated under the Ramsar Convention.
LWS – Local Wildlife Site	Non-statutory	Areas of land with significant wildlife value for the local area.
SINC – Site of Importance for Nature Conservation	Non-statutory	Areas of land with significant wildlife value for the local area.
CWS – County Wildlife Site	Non-statutory	Areas of land with significant wildlife value for the county.

TIM MOYA ASSOCIATES

arboriculture ecology landscape innovation

The Barn, FeltimoresPark, Chalk Lane,Harlow, Essex CM17 0PF

0845 094 3268 | info@tma-consultants.co.uk | www.timmoyaassociates.co.uk