

Preliminary Ecological Appraisal

Including: Extended Phase 1 Habitat Assessment Bat Scoping Assessment

29 Broadwater Road Welwyn Garden City AL7 3BQ

July 2019

190432-ED-01a

Limitations and Copyright

TMA has prepared this Report for the sole use of the named Client or his Agents in accordance with our terms of business, under which our services were performed. No other warranty, expressed or implied, is made as to the professional advice included in this Report or any other services provided by us. This Report may not be relied upon by any other party without the prior and express written agreement of TMA. The assessments made assume that the sites and facilities will continue to be used for their current purpose without significant change. The conclusions and recommendations contained in this Report are based upon information provided by others and upon the assumption that all relevant information has been provided by those parties from whom it has been requested. Information obtained from third parties has not been independently verified by TMA.

Tim Moya Associates standard Limitations of Service apply to this report and all associated work relating to this site. A copy has been supplied with our original quotation and further copies are available on request.

Project	29 Broadwater Road
Report Type	Preliminary Ecological Appraisal
Author	Brooke Waites GradCIEEM, Consultant Ecologist
Reviewed by	Simon Thomas MCIEEM, Principal Ecologist
Original Report Date	11/07/19
Updates	26/07/19 Version A – correction to tree schedule.

CONTENTS PAGE (CLICK TO FOLLOW LINKS)

NO	N-TECHNICAL SUMMARY	. 4
1	INTRODUCTION	. 5
	BACKGROUND	.5
	PURPOSE OF THE REPORT	.5
	LIMITATIONS	.6
	INFORMATION SUPPLIED	.6
	SITE LOCATION	
2	RELEVANT LOCAL PLANNING POLICY	. 7
	WELWYN AND HATFIELD BOROUGH COUNCIL, DRAFT PLAN PROPOSED SUBMISSION	
	DOCUMENT 2016	
3	SURVEY METHODOLOGY	. 9
-	DATA SEARCHES	.9
	SITE SURVEY	
	BAT SCOPING SURVEY	10
4	DESK STUDY RESULTS	
	DESIGNATED SITES	
5	RESULTS OF HABITAT SURVEY	12
-	HABITATS AND VEGETATION	
	PROTECTED/NOTABLE SPECIES POTENTIAL	14
6	RESULTS OF BAT SCOPING ASSESSMENT	17
-	BUILDINGS	
	TREES	17
	FORAGING AND COMMUTING HABITAT	17
7	CONCLUSIONS AND RECOMMENDATIONS	18
	DESIGNATED SITES	18
	HABITATS AND VEGETATION	18
	PROTECTED AND NOTABLE SPECIES	
	OTHER SPECIES	
8	OPPORTUNITIES FOR BIODIVERSITY ENHANCEMENT	22
9	REFERENCES	24
10	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	

NON-TECHNICAL SUMMARY

This report assesses the ecological value of the proposed development site at 29 Broadwater Road, Welwyn. The proposed development involves the demolition of the existing building and construction of 125-130 apartments.

The site survey included an assessment of the habitats found within the site and its immediate surroundings 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 contains suitable habitat for nesting birds.

Recommendations (see report for details):

- Tree protection areas and methods should be advised by a suitably qualified arboricultural consultant.
- To avoid an impact on commuting and foraging bats, it is recommended that lighting is designed to minimise illumination of suitable habitats.
- Care should be taken when removing brash or dense vegetation to avoid harm to hedgehogs which may be present.
- 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.
- An invasive plant species was recorded within the site *Cotoneaster horizontalis*. To avoid spreading these plants, they should be disposed of responsibly.
- Measures to enhance the site for local biodiversity are due to be included and are detailed at the end of this report. These include, bat boxes, bird boxes, log piles and additional tree and shrub planting.

1 INTRODUCTION

Background

- 1.1 This report has been instructed by Hightown Housing Association Ltd.
- 1.2 The proposed development involves the demolition of the existing building and construction of 125-130 apartments.

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 a Preliminary Ecological Appraisal a method of ecological assessment outlined in the CIEEM Guidelines for Preliminary Ecological Appraisal (2017). These guidelines state that the aims of the Preliminary Ecological Appraisal are to identify key ecological constraints associated with a project; identify any mitigation measures likely to be required; identify any additional surveys that may be required; and identify opportunities to deliver ecological enhancement.
- 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 has also been undertaken.

Limitations

- 1.9 The site was accessed during June 2019, a time when the majority of plant species would be expected to be evident, particularly extensive stands of invasive species such as Japanese knotweed (*Fallopia japonica*) or giant hogweed (*Heracleum mantegazzianum*). Where further botanical or invasive species surveys are considered necessary, these have been recommended within this report.
- 1.10 All areas of the site were accessed fully.
- 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 plan, showing the extent of the site boundary and the proposed development (at this stage):
 - Ground Floor Plan, McBains Ltd, 07/04/2019 (Drawing Reference BRW01-MCB-XX-00-DR-A-0006)

Site location

- 1.13 The site is located in an industrial area of Welwyn Garden City. Adjacent land is dominated by industrial development. The broader habitat comprises residential development and a woodland to the north-west of the site.
- 1.14 The central grid reference for the site is TL 24248 12657. The surveyed site covers approximately 0.7 hectares.

2 RELEVANT LOCAL PLANNING POLICY

Welwyn and Hatfield Borough Council, Draft Plan Proposed Submission Document 2016

Policy SADM 16 – Ecology and Landscape

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 proposed development, due to its industrial location and small-scale, will consequently result in potential biodiversity impacts that are low in nature and restricted to within the curtilage of the site. With reference to the 'UK Guidelines for Accessing and Using Biodiversity Data' (CIEEM 2016), it was therefore determined that a detailed local biological record search would contribute little to an understanding of the wider potential impacts on local biodiversity, protected species and sites designated for nature conservation interest. However, it should be noted that if evidence of protected species is found during the survey that subsequently leads to a protected species licence application, then Natural England will require a background data search as a matter of course. In such instances the data search will have to be obtained prior to the licence application.

Site Survey

- 3.2 The survey was undertaken on 19th June 2019 by Brooke Waites of Tim Moya Associates, an experienced ecological consultant and Graduate 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.
- 3.3 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.
- 3.4 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.

3.5 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*).

Bat Scoping Survey

- 3.6 The 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.
- 3.7 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 nature conservation designations.
- 4.2 There are seven statutory designated sites within 5 km of the proposed development as follows;

Table 1. Statutory designated sites of nature conservation interest	
---	--

Site name	Designation	Distance and direction from proposed works (km)	Description					
Sherradspark Wood	SSSI/LNR	1.4 NW	Ancient woodland consisting mainly of sessile oak.					
The Commons	LNR	1.9	Oak woodland with a number of ditches and ponds.					
Stanborough Reedmarsh	LNR	2.3 SW	The third largest reedbed in Hertfordshire. Contains areas of Willow woodland and reed marshes.					
Tewinbury	SSSI	2.3 NE	Marsh grassland and small areas of Alder woodland.					
Danesbury	LNR	3.9 N	An extensive area of grassland					
Singlers Marsh LNR 4 N Marsh and grassland managed by cattle. Areas of willow.								
Key (Refer to Appendix 5 for details):								
SAC – Special Area of Conservation								
LNR – Local Na	ture Reserve							

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 Appendix2.

Table 2. Habitats present within the site

Habitat type	Description	Dominant plant species	Overall biodiversity value*	Habitats of Principal Importance* *	Additional Notes
Buildings and hard standing	The site contains a large office block and areas of hard standing used for parking.	None	Negligible, other than potentially for nesting birds	No	Bat roost and nesting bird potential are assessed in Table 3, below.
Amenity grassland	Areas of closely mown amenity grassland are present to the west of the site. The amenity grassland areas have a low diversity of grass and forb species	Heavily mown, therefore the dominant grass species could not be identified.	Low	No	

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.	Cotoneaster (Cotoneaster horizontalis), orange ball tree (Buddleja globosa), cherry laurel (Prunus laurocerasus)	Moderate	No	Provide a feeding resource for birds and invertebrates.
Trees	The site contains a small number of trees.	Oak sp.	Moderate	No	Each tree has been assessed individually for its potential for roosting bats (see Section 6).

*Overall biodiversity value of a habitat is guided by the criteria listed in section 3.20 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 3, 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 3. 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.	No ponds present within 500 m of the site.
Reptiles	Yes	Yes – all reptiles	Long grass, scattered scrub, hedgerows, rubble and log piles.	No suitable habitats
Bats	Yes	Yes – Several species	Roost in buildings, tree cavities, bridges and caves.	The building on site has been assessed as having negligible potential for roosting bats. Refer to Section 6 of this report.
Dormouse	Yes	Yes	Hedgerows, dense scrub, deciduous woodland with connected canopy and good ground flora	No suitable habitats.

Species group	Strict Protection*	Species of Principal importance**	General habitat requirements	Suitable habitat within site
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 suitable habitats.
Hedgehog	No	Yes	Woodland, hedgerow, gardens, parks	The habitats within the site offer good foraging and sheltering habitats for hedgehogs.
Stag beetle	No	Yes	Woodland, hedgerow, orchard, parks	Introduced shrubs and tree line to the east of the site offer some limited habitat.
Other invertebrates	No	Various	Species-dependent. High invertebrate diversity is favoured in sites with a mosaic of habitats and diverse plant assemblage.	Introduced shrubs offer a variety of flowering plants as a feeding resource for invertebrates

Species group	Strict Protection*	Species of Principal importance**	General habitat requirements	Suitable habitat within site
Nesting birds	While nesting	Various	Trees, shrubs, scrub, hedgerows, cavities within buildings, waterbodies, arable fields, bare/stony ground.	Introduced shrub and trees. The building is generally well sealed and offers very limited nesting potential for birds.
Invasive Plant Species	No	No	Species-dependent: Waste land, railway verges, river banks, waterbodies	<i>Cotoneaster horizontalis</i> was 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). 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 All areas where bats may roost in all buildings were accessed internally and externally.
- 6.4 Building B1 was assessed as having **Negligible** potential for roosting bats, due to the absence of suitable roosting features.

Trees

- 6.5 There are a small number of trees within the site boundary, all of which had no suitable features for roosting bats.
- 6.6 Two trees located within the site but behind security fence could not be fully assessed due to access constraints. These trees are not due to be impacted by the proposed development, and therefore no further surveys are required.

Foraging and commuting habitat

6.7 The location of the site and the surrounding area is considered to be of low value for commuting and foraging bats. The landscape contains a variety of habitats consisting mainly of residential and commercial development with areas of woodland and public open spaces in the wider area. 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 CONCLUSIONS AND RECOMMENDATIONS

7.1 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 then to mitigate unavoidable impacts, and, as a last resort, to compensate for unavoidable residual impacts that remain after avoidance and mitigation measures.

Designated sites

- 7.2 The proposed development is likely to contribute to a cumulative increase in residents in the local area. The closest statutory designated site is Sherradspark Wood (SSSI and LNR) located 1.4 km north-west. It is likely the proposed development will increase recreational pressure to some extent on this and other local sites.
- 7.3 The local authority should advise whether a scheme is in place to mitigate the impact of increased recreational pressure on local statutory designated sites.

Habitats and Vegetation

7.4 No habitats within the proposed development site are listed as Habitats of Principal Importance under Section 41 of the NERC Act. (Refer to Appendix 5).

Trees (if retained on site)

- 7.5 An area of trees lies within the site's eastern boundary.
- 7.6 Recommendation: Tree protection areas and methods (if applicable) should be advised by a suitably qualified arboricultural consultant.

Protected and Notable Species

Great crested newts

- 7.7 The terrestrial habitat due to be impacted by the proposed development is of poor suitability to be used by great crested newts, comprising buildings, hard standing and small areas of short amenity grassland, introduced shrub, and trees.
- 7.8 No ponds were identified within 500 m of the site and the site is largely surrounded by suburban and industrial development. Therefore, it is considered unlikely that

great crested newts will be impacted by the proposed development and no further surveys or mitigation are recommended.

Reptiles

- 7.9 The site is currently unsuitable for reptiles as it comprises mainly hard standing and amenity grassland. The grass is cut short, offering no shelter for reptiles.
- 7.10 The site is largely surrounded by suburban and industrial development. Therefore, it is considered unlikely that reptiles will be impacted by the proposed development and no further surveys or mitigation are recommended.

Roosting bats - buildings

7.11 The building B1 has been assessed as having negligible bat roosting potential. Therefore, no further surveys or mitigation is required.

Roosting bats - trees

- 7.12 The trees within the site have all been assessed for their potential for roosting bats. The majority of trees were 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.
- 7.13 Recommendation: Based on the current layout, no trees are due to be removed, therefore no further surveys will be required. Should any trees require felling or other significant works, Appendix 4 gives a recommendation specific to each tree.

Foraging and commuting bats

- 7.14 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.
- 7.15 The foraging and commuting behaviour of bats is known to be altered by artificial lighting and bats may avoid illuminated areas (ILP 2018).
- 7.16 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 eastern edge of the site, along the tree line, 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.
- All luminaires should lack a UV element.
- 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

7.17 Due to the limited extent of suitable habitats present and poor connectivity with suitable habitats in the local area, dormice are considered unlikely to be present. The proposed development is considered unlikely to impact dormice and no further surveys or mitigation are recommended.

Water Vole and Otter

7.18 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

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

Hedgehog

- 7.20 The site includes habitats suitable for hedgehogs to be present. Whilst not a strictly protected species, the hedgehog is listed as a UK Biodiversity Plan Priority Species and measures should be made to protect and encourage hedgehog populations.
- 7.21 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 0 of this report includes measures to enhance the development for hedgehogs.

Invertebrates

7.22 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 0 of this report includes measures to enhance the development for invertebrates.

Nesting birds

- 7.23 The site includes, trees, introduced shrub and hedgerows, all of which are suitable for nesting birds during the nesting season (typically March to August inclusive).
- 7.24 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.

Other Species

Invasive plant species

- 7.25 *Cotoneaster horizontalis*, was recorded within scrub vegetation in the northern part of the site (see target notes, Appendix 1).
- 7.26 *Cotoneaster horizontalis* is 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 this species to grow in the wild.
- 7.27 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.

8 OPPORTUNITIES FOR BIODIVERSITY ENHANCEMENT

8.1 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. These enhancements are due to be incorporated into the development. Alternative or additional enhancements may also be considered. A Landscape Management Plan should be produced to detail how landscape features have been developed for biodiversity and ecological enhancement.

Tree and shrub planting

8.2 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 'Perfect for Pollinators' lists, such as lavender (*Lavandula* species), knapweeds (*Centaurea* species), guelder rose (*Viburnum opulus*), barberry (*Berberis* species) and honeysuckle (*Lonicera peridymenum*).

Bird boxes

- 8.3 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.
- 8.4 Swifts are an iconic urban bird species typically using buildings as nesting places. This species is listed as an Amber Species of conservation concern in the UK due to population declines. The inclusion of a swift box will provide a new potential nesting site for this species. In this case the recommended model is an **Ibstock Eco-habitat for Swifts** (or similar), to be installed into the fabric of the new buildings. The swift box will be installed at the highest possible level, to provide

sufficient height for swifts to access the box, with a clear flight path to the entrance and out of prevailing winds and strong sunlight.

Bat boxes

8.5 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

8.6 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.

9 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). Perfect for Pollinators Garden Plants. rhs.org.uk/plantsforpollinators

10 APPENDICES

Appendix 1- Habitat Plan

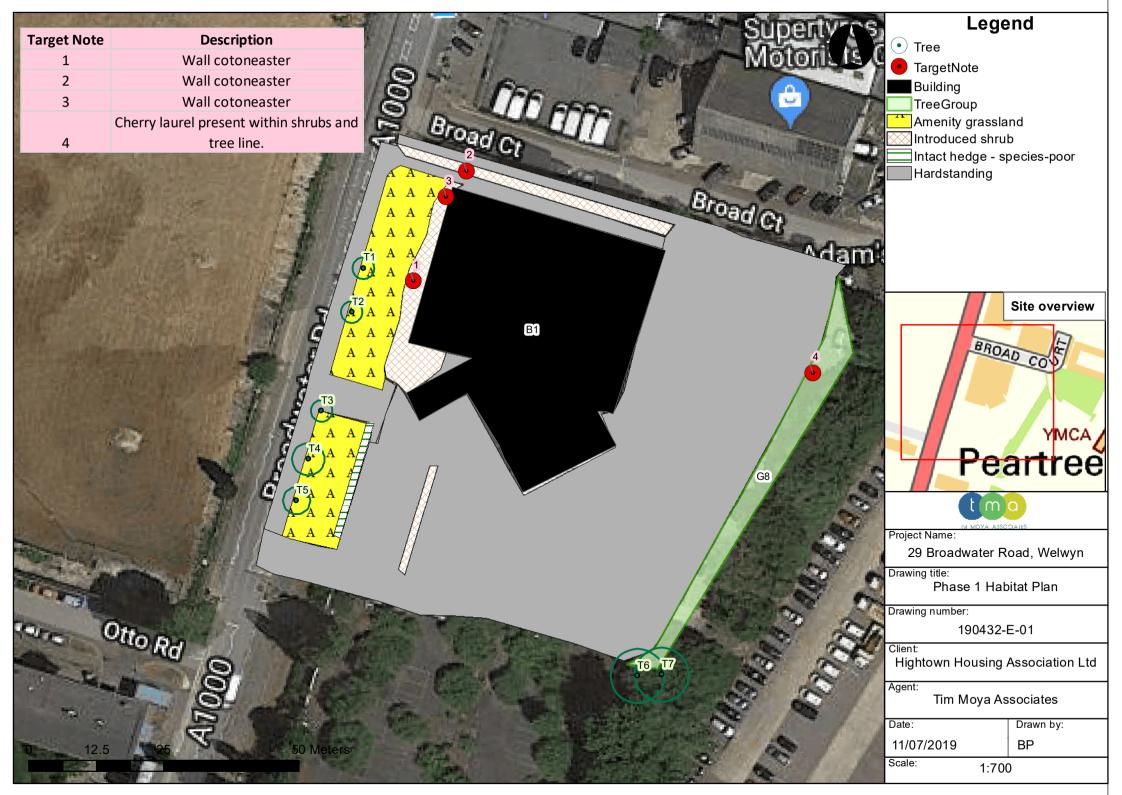
Appendix 2- Photographs

Appendix 3– Bat Scoping Assessment (Buildings)

Appendix 4– Bat Scoping Assessment (Trees)

Appendix 5- Wildlife Law and Planning Policy

Appendix 1 - Habitat Plan



Appendix 2 - Photographs



Appendix 3 – Bat Scoping Assessment (Buildings)



190432 - 29 Broadwater Road, Welwyn

190432ED-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 Main building	4+	Office	Flat Good	Roof external: Bitumen felt Roof internal: N/A Wall: Cladded	N	0	Y	N	Ν	N	Limited		The flat roofs have been inspected for access points or evidence of use by bats. No evidence found. No suitable features present.	- No further surveys required -	



Appendix 4 – Bat Scoping Assessment (Trees)



190432 - 29 Broadwater Road, 190432-ED-12

Species	BCT Category (explanation at end of schedule)	Notes	Ecological Recommendations
<i>Quercus sp.</i> Oak sp.	Negligible		No futher bat surveys required.
<i>Quercus sp.</i> Oak sp.	Negligible		No futher bat surveys required.
<i>Quercus sp.</i> Oak sp.	Negligible		No futher bat surveys required.
<i>Quercus sp.</i> Oak sp.	Negligible		No futher bat surveys required.
<i>Quercus sp.</i> Oak sp.	Negligible		No futher bat surveys required.
<i>Acer pseudoplatanus</i> Sycamore	Low	Tree located within the sites security area. No roost features visible but could not be fully assessed.	Currently the tree is due to be retained, therefore no further surveys are required. However if pruning or felling is required a ground level assessment requiring aafe access into the area will be required to view the tree from all angles.
<i>Acer pseudoplatanus</i> Sycamore	Low	Tree located within the sites security area. No roost features visible but could not be fully assessed.	Currently the tree is due to be retained, therefore no further surveys are required. However if pruning or felling is required a ground level assessment requiring aafe access into the area will be required to view the tree from all angles.
Acer pseudoplatanus Sycamore	Negligible	Scattered sycamore trees with thin ivy cover. No bat roosting potential present within any of the trees. Introduced shrub with cherry laurel and spotted laurel.	No further bat surveys required.
	Quercus sp. Qak sp. Quercus sp. Oak sp. Acer pseudoplatanus Sycamore Acer pseudoplatanus Sycamore Acer pseudoplatanus	Species(explanation at end of schedule)Quercus sp. Oak sp.NegligibleQuercus sp. Oak sp.NegligibleAcer pseudoplatanus SycamoreLowAcer pseudoplatanus SycamoreLowAcer pseudoplatanus SycamoreLow	Species(explanation at end of schedule)NotesOuercus sp. Oak sp.NegligibleOuercus sp. Oak sp.NegligibleQuercus sp. Oak sp.NegligibleAcer pseudoplatanus SycamoreLowTree located within the sites security area. No roost features visible but could not be fully assessed.SycamoreLowTree located within the sites security area. No roost features visible but could not be fully assessed.SycamoreLowScattered sycamore trees with thin ity cover. No bat roosting potential present within any of the trees. Introd used returbe built where lowed end the built intered to and endited barded



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 <u>Wildlife and Countryside Act 1981 (as amended)</u>. 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)

<u>Section 40 of the Natural Environment and Rural Communities Act 2006</u> 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.



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

Tim Moya Associates is a trading name of Tim Moya Tree Services Ltd. Company Reg No. 3028475