Making the Green Environment work for you

MIDCOUNTIES CO-OPERATIVE, MARKET SQUARE, NEWENT, GL18 1PS

ECOLOGICAL APPRAISAL

SEPTEMBER 2018

GUMA LTD

39 Paynes Meadow
Whitminster
Gloucester, GL2 7PS

01452 740758
07889 988 899

Notice to readers:

The results of the survey and assessment work undertaken by Guma are representative at the time of surveying.

Every endeavour has been made to identify the presence of protected species on site, where this falls within the agreed scope of works.

The flora and fauna detailed within this report are those noted during the field survey and from anecdotal evidence. It should not be viewed as a complete list of flora and fauna species that may frequent or exist on site at other times of the year.

Up to date standard methodologies have been used, which are accepted by Natural England and other statutory conservation bodies. No responsibility will be accepted where these methodologies fail to identify all species on-site.

Guma cannot take responsibility where Government, national bodies or industry subsequently modify standards.

Guma cannot accept responsibility for data collected from third parties.

Reference to sections or particular paragraphs of this document taken out of context may lead to misrepresentation.

Contents

1.0 Introduction

Background

1.1 Guma was commissioned to undertake an Ecological Appraisal of a site known as Midcounties Co-Operative, Market Square, Newent, GL18 1PS. The site consisted of the shop and warehouse building of the Co-Operative and surrounding car park and landscaped areas of the site. The site was bound by residential properties to 3 sides and a road to the north.

1.2 The site is the subject of a planning application to permit extensions to the store, warehouse, car park and service yard area.

1.3 The aim of the survey was to identify features of ecological interest, undertake a basic search of the site for evidence of use, or potential use, by protected species, and to identify any other possible ecological constraints to the development.

Site Location

2.0 Legislation and Status

Bats

2.1 All species of bat are listed on Schedule 5 of The Wildlife and Countryside Act (1981) and as such receive protection under Section 9 of this Act. This has been amended several times, most recently by the Countryside and Rights of Way Act 2000, which added 'or recklessly' to Section 9(4) (a) and (b). In summary, it is a criminal offence to.

intentionally kill, injure or take a wild bat

be in possession of, or control, any live or dead wild bat or part of, or anything derived from a wild bat

intentionally or recklessly damage, destroy or obstruct access to any place that a wild bat uses for shelter or protection

intentionally or recklessly disturb any wild bat whilst it is occupying a structure or place that it uses for shelter or protection

transport for sale or exchange or offer for sale or exchange a live or dead bat or any part of a bat.

2.2 The Conservation of Habitats and Species Regulations 2010, consolidate all the various amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994, in respect of England and Wales. It is an offence to possess, sell or offer or transport for sale any European species of bat or any part derived from such a species. These Regulations also remove the 'incidental result defence'. In other words, it is no longer a defence to show that the killing, capture or disturbance of a species covered by the Regulations or the destruction or damage of their breeding sites or resting places was the incidental and unavoidable result of a lawful activity. Natural England can grant European Protected Species (EPS) licenses in respect of development to permit activities that would otherwise be unlawful.

2.3 Under Section 40 of the Natural Environment and Rural Communities Act (2006) public bodies, including Local and Regional Planning Authorities have a duty to 'have regard' to the conservation of biodiversity in England when carrying out their normal functions, which includes consideration of planning applications. In compliance with Section 41 of the Act, the Secretary of State has published a list of species considered to be of principal importance for conserving biodiversity in England. This is known as The England Biodiversity List, all of which make up the NERC Priority Species. Regional Planning Bodies and Local Planning Authorities will use it to identify the species that should be afforded priority when applying the requirements of the National Planning Policy Framework (NPPF) to maintain, restore and enhance species and habitats.

2.4 Seven bat species are NERC Priority Species (JNCC, 2017). These are:

Barbastelle *Barbastella barbastellus*

Bechstein's *Myotis bechsteinii*

Noctule *Nyctalus noctula*

Soprano Pipistrelle *Pipistrellus pygmaeus*

Brown Long-eared *Plecotus auritus*

Greater Horseshoe *Rhinolophus ferrumequinum*

Lesser Horseshoe *Rhinolophus hipposideros*

2.5 Greater Horseshoe, Lesser Horseshoe, Barbastelle and Bechstein's, are afforded greater protection under European legislation, being listed under Annex II of the EC Habitats Directive which lists species whose conservation requires the designation of Special Areas of Conservation (SACs).

Birds

2.6 Nesting birds are protected under The Wildlife and Countryside Act 1981 (and amendments). It is a criminal offence to:

Intentionally kill, injure or take any wild bird.

Intentionally take, damage or destroy the nest of any wild bird whilst it is still in use or being built.

Intentionally take or destroy the egg of any wild bird.

Intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

3.0 Methodology

Personnel

3.1 The survey was carried out by Dr Maggie Bignall BSc Hons, PhD, CBiol, MRSB, an ecologist with over 30 years' experience working as a consultant. Maggie has extensive experience of habitat and protected species surveying, assessment and preparation of mitigation for a wide variety of development projects. She has completed ecology chapters for Environmental Statements and prepared Biodiversity Management Plans for ecological protection and enhancement schemes. The scoping survey for bat roost potential was carried out as an accredited agent working under Class Licence Registration Number: 2015-12313-CLS-CLS.

Desk Study

3.2 In order to compile background information on the site and immediate surroundings, Gloucestershire Centre for Environmental Records (GCER) was contacted.

3.3 Information requested was as follows:

Statutory site designations on or within 1 km of the site

Non-statutory site designations on or within 1 km of the site.

Records of protected species within the 1 km of the site.

Records of rare or notable species within the 1 km of the site.

Habitat Survey

3.1 The site was visited on the 20th September and surveyed in accordance with the Joint Nature Conservation Committee (JNCC) Phase I Habitat Survey methodology (JNCC, 2010). This technique provides an inventory of the basic habitat types present and allows identification of areas of greater potential that might warrant further study.

3.2 The observable higher plant species in each habitat type within the site, and their abundance, were recorded using the DAFOR scale:

D Dominant

A Abundant

F Frequent

O Occasional

R Rare

Inspection Survey for Bat Roost Potential

3.3 An internal and external inspection of the parts of the building affected by the proposed works was conducted on 20th September 2018. Weather conditions on the day were rain and strong wind and a temperature of 14ºC.

3.4 All bat species resident in the UK have been recorded using buildings and built structures as roosts at some time during the year (Collins, 2016). The building was inspected externally and internally following the methodology set out in the Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines. 3rd Ed (Collins, 2016).

3.5 In summary, the building was searched externally and then internally, where access was available, for any evidence of use by bats and notes were made on the following:

Location and number of any live bats.

Location and number of any corpses or skeletons.

Location and number of droppings.

Notes on relative freshness, shape and size of droppings.

Location and quantity of feeding remains.

Location of clean, cobweb-free timbers, crevices and holes.

Location of characteristic staining from urine and/or grease marks.

Location of known and potential access points to the roost.

Location of the characteristic smell of bats if no other evidence is recorded.

3.6 Notes were also made on the characteristics and features of the building as follows.

Type, age and aspect.

Wall construction, in particular the type of brick or stone used to build the walls and whether it has cavity walls or rubble-filled walls.

Form of the roof, in particular the presence of gable ends, hipped roofs, etc. and the nature and condition of the roof covering.

Presence of hanging tiles, weather boarding or other forms of cladding.

Nature of the eaves, in particular if they are sealed by a soffit or boxed eave and the tightness of the fit to the exterior walls.

Presence and condition of lead flashings.

Gaps under eaves, around windows, under tiles, lead flashings etc.

Presence and type of roof lining.

Presence of roof insulation.

Presence of water tanks in loft (note if covered or uncovered).

Structure of the roof including the truss type, age and nature of timber work.

Information or evidence of work having been undertaken that could affect use of the structure by bats.

3.7 The trees proposed for felling were inspected on the 20th September 2018. This part of the survey involved a detailed inspection of the exterior of the trees from ground level to compile information about the tree and to look for Potential Roosting Features (PRFs). Information collected about the tree included the location, species, diameter at chest height or number stems, and height. PRFs that may be used by bats include the following (Collins, 2016):

Woodpecker holes

Rot holes

Hazard beams

Other vertical or horizontal splits (such as frost-cracks) in stems or branches

Partially detached platey bark

Knot holes arising from naturally shed branches, or branches previously pruned back to the branch collar

Man-made holes (e.g. cavities that have developed from flush cut) or cavities created by branches tearing out from parent stems

Cankers (caused by localised bark death) in which cavities have developed

Other hollows or cavities, including butt-rots

Double-leaders forming compression fork with included bark and potential cavities

Gaps between overlapping stems or branches

Partially detached ivy with stem diameters in excess of 50 mm

Bat, bird or Dormouse boxes.

3.8 Information collected about PRFs included a description, height and orientation.

3.9 Signs of bat roosts include the following (Collins, 2016):

Presence of actual bats

Bat droppings in, around or below a PRF

Odour emanating from a PRF (may also be from other animals)

Audible squeaking at dusk or in warm weather (may also be from other animals)

Staining below the PRF (may also be the result of wet rot).

3.10 All PRFs identified were inspected in detail in order to more accurately assess their suitability for bats and look evidence of bats. Those that could not be inspected from the ground were inspected with the use of a ladder. Any additional information was then recorded.

3.11 The presence or potential presence of nesting birds was also investigated and recorded.

Equipment

3.12 Equipment used to aid the inspection survey included low and high-powered torches, ladders, endoscope, mirrors, binoculars and a camera.

Assessment

3.13 Where a building cannot fully be inspected or the presence of bats entirely ruled out, the potential suitability of the building for roosting bats is assessed and classified as follows (Collins, 2016):

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

Low – A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).

Moderate – A structure 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 structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

3.14 The PRFs have been evaluated to assess which of the following categories they fall into (Collins, 2016):

Confirmed roost

High roost suitability

Moderate roost suitability

Low roost suitability

3.15 Trees with no PRFs or PRFs of low roost suitability do not generally require further emergence/re-entry surveys. Other categories may require further surveys to determine the presence/absence of bats with a greater level of confidence, and/or characterise roosts where present.

3.16 The surveyed building and trees have been evaluated to assess which of the following categories they fall into, if any (Mitchell-Jones, 2004 & Collins, 2016):

Transitional roost (April-September/October) - On waking from hibernation or in the period prior to hibernation, bats search for roosts in which they stay for only a few days or on some occasions several weeks. These transitional roosts can be occupied by a few individuals or occasionally small groups. The transitional roosts used prior to

hibernation are generally cool and thus may allow bats to reduce their energy requirements before going into hibernation.

Maternity roost (May-August) - Breeding females gather together around the beginning of May to form nursery colonies. During this period gestation begins with births typically occurring between June and July. The females and their young remain within the maternity roost until the young are weaned and independent (late July-August). These roosts tend to break up between August and September. Adult males are rarely found within these colonies. However, the adult males of long-eared bats, Daubenton's, Natterer's, and horseshoe bats can be found roosting within maternity colonies with their numbers increasing throughout the active season.

Satellite roost (May-August) - Breeding females may have alternative roost sites in close proximity to the main nursery colony. These are referred to as 'satellite roosts'. The numbers of bats using these roosts can vary greatly, from a few individuals, to small groups.

Mating roost (September-November) - All British bats are polygynous i.e. males mate with several females. Mating generally takes place from late summer and can continue through the winter. A number of different mating strategies are used by bats, though males of some species establish mating roosts, whereby they defend territory and display/call to females to mate.

Hibernation roost (October-March) - Depending on the weather and food availability, bats tend to move to hibernation sites from October. Hibernation roosts can vary greatly in terms of the number of individuals and the diversity of species that occupy them. However, they tend to have a constant cool temperature and high humidity, which allows the bats to use less energy regulating their temperature. Bats will wake occasionally during hibernation to drink and feed.

Night roost (March-November) - Bats may use roosts other than traditional day roosting sites to rest in during the night. These roosts vary in their conservation significance. Night roosts may be used by a single individual on occasion or they could be used regularly by the whole colony. Studies have shown that night roosts may be of particular importance to some species i.e. the Lesser Horseshoe, providing key resting places within core foraging areas.

Day roost (March-November) - These roosts are used during the day to rest in. Males of most British species spend the summer roosting alone or in small groups with other males in such roosts. Bats may regularly use a number of day roosts, switching between them on a daily basis, though conversely, they may occupy the same roosting site for several weeks.

Feeding roost (May-November) - These roosts can be occupied by a single animal or a few individuals throughout the active season. They vary in their significance as they may be used by the whole colony or just a few individuals to feed, to shelter from the weather or to rest temporarily. Feeding roosts are often used by long-eared and horseshoe species.

Other considerations, Swarming sites - Swarming takes place between August and November, whereby large numbers of bats from several species gather, generally around caves and mines. They are often dominated by the *Myotis* species and appear to be important mating sites with some bats travelling several kilometres to reach these areas. A proportion of the bats that travel to these sites will remain to hibernate.

Limitations

3.17 The roof void above the shop floor store was not accessible.

3.18 The best time for identifying PRFs on the trees is winter when most broadleaved trees and some conifers (larch) have shed their leaves/needles. The survey was carried out in early autumn and although foliage was present, the trees were small enough that it was considered unlikely that this obscured the view of any PRFs and the likelihood of PRFs being missed is negligible.

Other Fauna

3.19 The site and surroundings were searched for signs of any other protected species.

3.20 Incidental observations of birds and any other fauna were recorded and a search made for any signs of current or previous nesting.

Valuation of Ecological Features

3.21 The valuation process used in this report follows the guidance on ecological evaluation and assessment from the Chartered Institute of Ecology and Environmental Management (CIEEM, 2006).

3.22 The value of areas of habitat and plant communities has been measured against published criteria where available. Biodiversity Action Plans (BAPs) have been searched to identify whether action has been taken to protect all areas of a particular habitat and to identify current factors causing loss and decline of particular habitats. The presence of injurious and legally controlled weeds has also been taken into account.

3.23 When assigning a level of value to a species, its distribution and status (including a consideration of trends based on available historic records) has been taken into account. Other factors influencing the value of a species are: legal protection, rarity and Species Action Plans (SAPs). Guidance, where it is available, for the identification of populations of sufficient size for them to be considered of national or international importance has also been taken into account.

Nomenclature

3.24 The English name only of flora and fauna species is given in the main text of this report; however, scientific names are used for invertebrates where no English name is available. Vascular plants and charophytes follow the nomenclature of The Botanical Society for the British Isles (BSBI) 2007 database (BSBI, 2007) with all other flora and fauna following the Nameserver facility of

the National Biodiversity Network Species Dictionary (http://www.nhm.ac.uk/nbn/), which is managed by the Natural History Museum.

4.0 Results

Desk Study

4.1 There are no statutory designated sites and three non-statutory designated sites, Key Wildlife Sites (KWS), within 1 km of the site.

Ell Brook Meadows KWS – Watercourse, marsh, bog, swamp, mire and tall herb fen and wet woodland with plant, bird and mammal interest. 635m away.

Newent Lake Park KWS - Good invertebrate fauna including Myopa extricata and Drymus ryei. 280m away.

Mantley Chae Orchard KWS – plant interest. 695m away.

4.2 All of these sites are well removed and isolated from the application site and there is no reasonable likelihood of any impacts to these sites as a result of the development; no further consideration is given to these sites.

4.3 GCER provided the following records for protected and notable species within 1 km of the site boundary.

Mammals – Eurasian Badger, Polecat, Hedgehog, European Otter, Noctule Bat, Natterer's Bat, Daubenton's Bat, Lesser-horseshoe Bat, Brown Long-eared Bat, Common Pipistrelle Bat, Soprano Pipistrelle Bat.

Birds – 60 species.

Reptiles – Grass Snake, Slow-worm,

Amphibians – Great Crested Newt, Common Frog, Common Toad, Smooth Newt.

Invertebrates – White Ermine, Hedge Accentor, Stag Beetle, 3 species of true fly.

Plants – Bluebell, Daffodil, a lichen

Habitats

4.4 The following habitat types were recorded during the survey.

Amenity grassland

Introduced shrub

Scrub

Standard trees

Hard standing

4.5 The site consisted of the store and warehouse of the Co-Operative and the surrounding areas of car park and other habitats.

Amenity grassland

4.6 There were three areas of amenity grassland – in the car park on the southern boundary of the site, at the eastern end of the car park and south of the store building on the southern boundary of the site. The grassland in these areas comprised very similar species. The grasses included Meadow-grass, Bent Grass and Timothy. There was abundant Germander Speedwell; frequent Saxicolous moss species, Ribwort Plantain, Dandelion, Red Clover, Yarrow; occasional Ribwort Plantain, Common Mouse-ear, Dove's-foot Cranesbill and rare Self-heal and Common Cat's-ear.

4.7 The raised grassland area in the south had a terraced edge, planted with variegated Ivy.

Photograph 1. Raised grassland area in south of car park

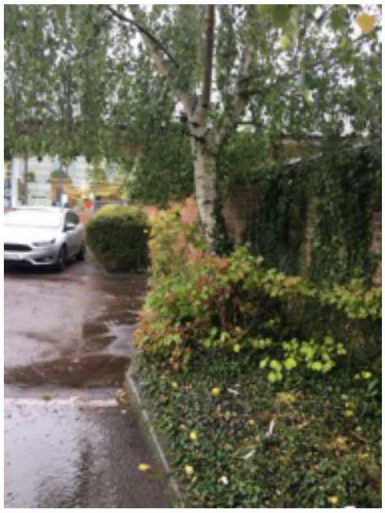
Photograph 2. Close up of amenity grassland in eastern end of car park

Photograph 3. Area of grassland in eastern end of car park

Photograph 4. Grassland beside building on south boundary of site

Introduced Shrub

4.8 There were several areas of introduced shrubs on the site. These included an herbaceous border north of the store with shrubs, an Ash seedling and two Silver Birch trees; two ornamental shrubs on the south-eastern corner of the store; and ornamental shrubs beneath trees on the eastern site boundary.



Photograph 5. Ornamental shrubs and Silver Birch tree north of the store

Photograph 6. Ornamental shrubs south-east of the store

Photograph 7. Ornamental shrubs on eastern boundary of site

Scrub

4.9 There were several areas of scrub on the site. The overgrown mound to the west of the building was covered with a dense, impenetrable scrub dominated by Bramble with Hedge Bindweed, Ivy and occasional Hazel saplings and Buddleia. The mound appeared to comprise made-up ground with rubbish.

4.10 There were stands of scrub with trees on the southern and eastern boundaries of the site. These areas comprised Field Maple, Walnut, Cherry and Hawthorn with Bramble and Rose. There was a small length of scrub on the north-eastern boundary of the site comprising Field Maple, Hazel and Rose.

Photograph 8. Scrub on north-eastern boundary of site

Photograph 9. Scrub on southern boundary of site

Photograph 10. Scrub on south-eastern boundary of site

Standard trees

4.11 There were a number of standard trees on the site. Within the car park area there were five small Rowan trees and a Silver Birch tree. North of the store were two Silver Birch trees. Beside the entrance to the car park was a Cherry tree. There were standard trees along the south boundary, of Silver Birch, Field Maple, Ash and Cherry. There were trees of Field Maple on the eastern boundary of the site and trees of Field Maple and Ash in the south-western corner of the site.

Photograph 11. Cherry tree beside site entrance

Photograph 12. Trees in south-east corner of site

Hard standing

4.12 The car park and service yard on the site comprised tarmac and concrete hardstanding. These areas had no vegetation on them.

Bat Inspection Survey Results

Surrounding habitat

4.13 The building and trees surveyed are part of a site comprising a Co-Operative store and warehouse with associated car parking and landscaping. The building has external lighting that is illuminated during the hours of darkness. The surrounding area is dominated by residential properties and the centre of Newent to the north. The site itself provides only very limited opportunities for bats to forage due to its urban nature and lack of connection to favourable habitats.

Co-Operative store and warehouse

4.14 External – The store and warehouse were constructed of a brick exterior with an overhanging porch around all sides of the building. The porch in the north-eastern and eastern elevations was constructed with vertical steel supports and steel girder framework above. Around the entrance to the store wooden boards formed the gable end of the entrance. The soffits of the porch were of white sheet material. The sloping, clipped gable roof was covered with slate tiles and the ridge between the sloping and flat roof was of similar slate tiles. The flat roof was not visible.

4.15 Internal, store – The store was in active use and there was a suspended ceiling with no access to the roof void above.

4.16 Internal, warehouse – The warehouse comprised blockwork walls with no cladding. The sloping, clipped gable roof was steel-framed and was insulated with close-fitting boards. The central flat roof comprised metal sheets and was unlined. There were no roof voids in this area. There were several pedestrian doors and a large roller door giving access to the outside. There were internal rooms within the warehouse including offices, services, a plant room and chillers. The warehouse was busy with staff members and well-lit.

4.17 Access for bats – There was no access for bats into the building or the roof void as the external walls, soffits and roof cladding were in good condition and well-sealed.

4.18 Potential roosting sites – There were two places where downpipes entered the roof and a gap was seen between the downpipe and surrounding soffit. One was located along the northern side of the building and there was evidence of some bird nesting material extending from the gap and no evidence of roosting bats such as droppings or staining. The other was at the north-west corner of the building and the gap was heavily cobwebbed and there were no signs of roosting bats, such as droppings or staining. The interior of the store had no potential roosting sites. The interior of the warehouse had no potential roosting sites. It is concluded that roosting bats are likely to be absent from this building, with only low potential for future use.

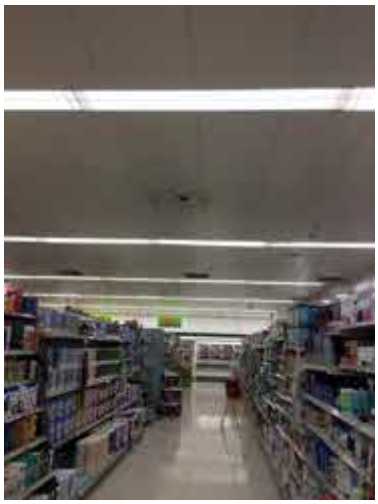
Photograph 13. Clipped gable roof with slate tiles

Photograph 14. Overhanging porch and lights

Photograph 15. Wooden boarding around the entrance doors Photograph 16. Well-sealed external wall and soffit

Photograph 17. Warehouse, clipped gable roof insulation *Photograph 18. Warehouse, central metal roof*

Photograph 19. Warehouse, internal partitions



Photograph 20. Store interior

Tree Inspections

4.19 The trees proposed for removal in the development were subject to a preliminary ground level roost assessment. The results of the survey are presented in Table 1 and the tree numbers are shown in Appendix 1.

Table 1. Preliminary Ground Level Roost Assessment Survey Results.

Tree No.	Species	Est. Height	Girth	PRF - Type, height, aspect	Notes
T1	Silver Birch	8m	0.4m	None	Minor flaking bark
T2	Rowan	3m	N/A	None	Multi-stemmed
T3	Rowan	4m	0.2m	None	
T4	Field Maple	5m	0.3m	None	Dense vegetation around tree
T5	Field Maple	5m	0.3m	None	Dense vegetation around tree

PRF Inspection Survey Results

4.20 None of the trees proposed for removal had any Potential Roosting Features (PRFs) for bats.

Photograph 21. T1

Photograph 22. T2

Photograph 23. T3

Photograph 24. T4, T5

Birds

4.21 On the middle of the northern wall of the building, where a downpipe passed through the soffit, there was a gap with vegetation extending out of it. This suggested that there had been a bird nest or at least some nesting material in the void behind the gap.

4.22 There was evidence of use by birds on top of a light on the western external wall, where there were streaks of excreta on the light. No bird nests were recorded during the survey, however, there may have been nests present in the dense scrub to the west of the building and the dense vegetation around T4 and T5.

Photograph 25. Gap around downpipe with vegetation

Other protected species

4.23 There was no evidence of the presence of any other protected species in the habitats on the site.

5.0 Impacts and Recommendations

Impacts

5.1 The site is the subject of a planning application to permit an extension to both the store and warehouse; the provision of additional service yard area; and additional car parking spaces and landscaping. Possible ecological constraints and recommendations with regard to these works are discussed below.

Habitats

5.2 The habitats on site do not currently qualify as NERC Priority Habitats. The main vegetative habitats to be lost are species-poor amenity grassland and scrub, which do not fit the criteria to qualify as NERC Priority Habitats (JNCC, 2017). In order to qualify as a NERC Priority Habitat, grassland typically has to be unimproved (good semi-improved grassland can also qualify) and would have to be examples of lowland calcareous grassland or lowland dry acid grassland, habitats not found on site.

5.3 The habitats on site to be lost are small in area, common, of low ecological value and easy to replace. Any impacts as a result of loss of these habitats in terms of their vegetation are considered to be negligible.

Protected and Notable Species

Bats

5.4 GCER provided records of seven species of bat recorded within 1km of the site. None of the records are within close proximity of the site. It has been concluded that roosting bats are absent from the buildings and trees. It is understood that the proposals include works at the northern end of the building to make way for the extensions. These works will result in the loss of potential roosting features of low and negligible suitability for bats and from which it has been concluded that roosting bats are absent.

5.5 The following impacts and potential impacts with regard to bats have been identified.

Building works resulting in the loss of roosting sites of negligible and low potential. No evidence of use by bats was recorded and it is concluded that roosting bats are both historically and currently absent from the buildings. No impacts and low potential for future use.

Removal of five trees with no PRFs for bats. No impacts and low potential for future use.

Birds

5.6 GCER provided records of sixty species of birds from within 1km of the site. The closest record is for Red Kite, approximately 80m from the site. There is unlikely to be any impact on this species or any of the protected species recorded within 1km of the site.

5.7 There was evidence that birds may have nested in the northern end of the building and there may be bird nests in areas of dense scrub or introduced shrubs, which could not be fully inspected at the time of survey.

5.8 The site provides limited nesting and foraging opportunities for a number of urban bird species. The survey was carried out outside of the nesting season and no active or old nests were observed, although nests could have been missed in the dense vegetation. There is medium potential for birds to nest in this vegetation in the future.

5.9 Nesting birds are protected under The Wildlife and Countryside Act 1981 (and amendments). It is recommended that the works to the building and removal of vegetation takes place outside the bird-nesting season of March to August inclusive. Where this is not possible, the vegetation should be surveyed for nesting birds by a suitably qualified person prior to works commencing. If they are found, then access to the nest must be maintained and the nest must be left intact until the young have fledged.

Other protected species

5.10 GCER provided records of Badger within 1km of the site. The site does not provide cover or undisturbed locations for the construction of setts and there is no foraging habitat on the site. No evidence of Badgers was recorded in the form of hairs caught on wire, latrines or snuffle marks either from the site or its environs. This species is expected to be absent from the site.

5.11 GCER provided records of Otter within 1 km of the site. There were no watercourse either on site or in the immediate vicinity. The closest watercourse is Peacocks Brook to the west, which is separated from the site by a road and residential properties. Otter are expected to be absent from the site.

5.12 GCER provided records of Great Crested Newts in four locations within 1km of the site. There are no ponds within 500m of the site that are not totally isolated from it by roads and urban habitats. It is concluded that Great Crested Newts are likely to be absent from the site.

5.13 GCER provided records of Hedgehog within 1km of the site. The scrub provides potential cover for a variety of common mammals, including Hedgehog. However, there is limited potential for foraging on the site and it is expected that predominantly common species of small mammals are likely to be present.

5.14 GCER provided records of Grass Snake and Slow-Worm from within 1km of the site. The site provides very limited suitable habitat for reptiles. Although stands of dense scrub were present to provide cover and there were areas of tarmac for basking, there were almost no suitable

foraging habitats. The small size of the site and its isolation from other off-site potential reptile habitat makes it very unlikely that these species are present on the site.

5.15 GCER provided several records of moth, fly and beetle species including Stag Beetle. The site has very limited habitat for these invertebrates and the potential for rare or protected species is negligible. Generally, the site is expected to support only common invertebrates.

Further Surveys

5.16 It has been concluded that roosting bats are absent from the buildings and trees, and in accordance with the Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines. 3rd Ed (Collins, 2016), where an absence of bats can be determined with a high level of confidence, no further surveys to determine presence/absence are required.

5.17 The potential for future use, particularly for opportunistic roosting, cannot be entirely ruled out. See below for precautionary measures when carrying out works.

5.18 No further surveys for birds are required at this time. However, due to the fact that birds nesting on the site could not be ruled out, if the development work is going to be carried out within the bird nesting season, March-August inclusive, a survey of the building and areas of dense vegetation needs to be carried out.

Legal Compliance

5.19 The Wildlife and Countryside Act 1981 as amended by The CRoW Act 2000 and The Conservation of Habitats and Species Regulations 2010 makes it illegal to recklessly damage, destroy or obstruct access to any place that a wild bat uses for shelter or protection, whether the bat is occupying the shelter at the time or not.

5.20 European Protected Species (EPS) Licences to permit the above for the purposes of development must be obtained from Natural England. To gain a licence the scheme must have been issued with detailed planning permission and must not result in a loss of conservation status of the species concerned. It has been concluded that roosting bats are absent from the buildings and trees, and a licence to permit the extension of the buildings will therefore not be required.

5.21 Nesting birds are protected under The Wildlife and Countryside Act 1981 (and amendments). It is illegal to intentionally take, damage or destroy bird nests whilst it is being built or is in use. Bird nests must be left undisturbed until all the chicks have fledged.

Provision for Bats

Pre-works checks and precautionary methods of working.

5.22 All building works should be carried out with care and vigilance for bats. The contractor should be advised to adhere to the following procedures in the unlikely event that bats are found during works:

If the roost is still in the structure and bats are not injured, stop work and contact a licensed ecologist. If help is not available, allow bats to fly out of harm's way.

If material containing a roost has been removed, the roost is not exposed and the bats are not injured, temporarily seal and isolate the roost, stop work and seek advice from a licensed ecologist. If advice is not readily available, re-open it and allow bats to relocate of their own accord.

If the roost has been exposed, and especially if bats have been injured, stop work, collect bats in a secure box or bag (using a glove) and contact a licensed ecologist.

Habitat Creation

5.23 No specific habitat creation for bats is required in this instance, subject to the continued absence of bats from the buildings. The continuing need for 24-hour lighting on the building means that there are limited opportunities to enhance the site for bats.

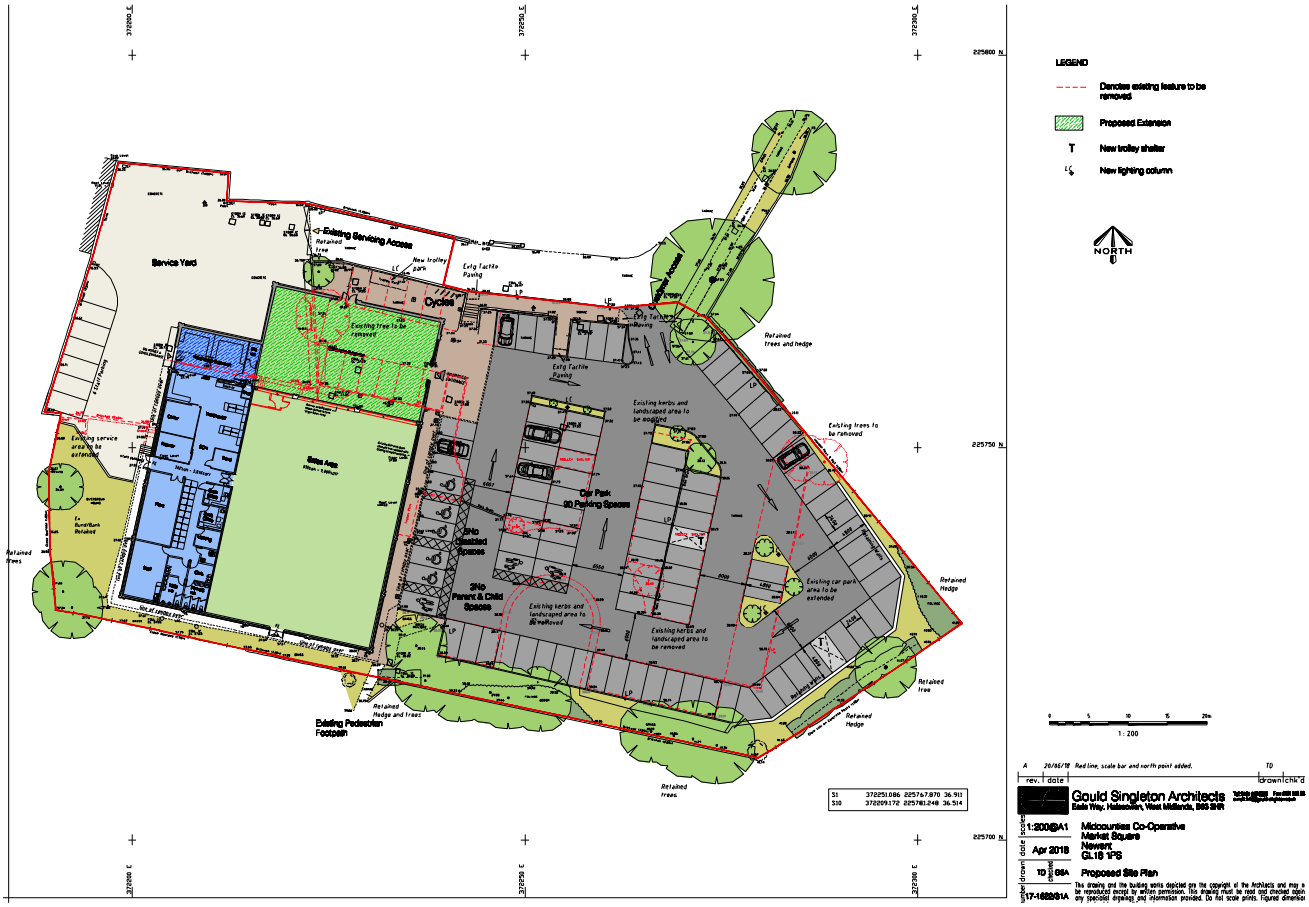
Provision for Birds

5.24 There is limited evidence of birds nesting on the site. However, opportunities for enhancement should be considered and provision could be made for the following birds.

Wren, Robin. These birds will use an open-fronted, individual box, such as the Schwegler Bird Home 1MR and two of these could be installed on trees around the periphery of the site, at a height of at least 2m.

5.25 Any new planting on the site could include some plant species that are native to the area and ideally produce a range of seeds and berries at varying times of the year. Nectar-rich plants could also be used encourage invertebrates on to the site, which in turn provide food for birds as well as other species such as bats.

6.0 Appendix 1 – Development Proposals



7.0 References

All online resources accessed on 23/09/18.

BSBI (2007). *BSBI 2007 List.* [Online]. Available at: http://www.bsbi.org.uk/taxonomy.html.

Chartered Institute of Ecology and Environmental Management (2006). *Guidelines for Ecological Impact Assessment in the United Kingdom*. [Online]. Available at: http://www.cieem.net/ecia-guidelines-terrestrial-freshwater-and-coastal-.

The Conservation of Habitats and Species Regulations 2010, SI 2010/490

Countryside and Rights of Way Act 2000, (c.37), London: HMSO.

Joint Nature Conservation Committee (2010) *Handbook for Phase I Habitat Survey – a Technique for Environmental Audit*. JNCC: London.

Joint Nature Conservation Committee (2017). *UK BAP Priority Habitats*. [Online]. Available at: http://jncc.defra.gov.uk/page-5718

Joint Nature Conservation Committee (2016a). *UK BAP Priority Species*. [Online]. Available at: http://jncc.defra.gov.uk/page-5717

Natural Environment and Rural Communities Act 2006, (c.16), London: HMSO.

Wildlife and Countryside Act 1981 (and amendments). (c.69), London: HMSO.