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61 Wentworth Drive, Pinner, Middlesex, HA5 2PX.

Ecological Appraisal

September 2014

Notice to readers:

The results of the survey and assessment work undertaken by All Ecology 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.

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

All Ecology 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.

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1.0 Introduction

Background

- 1.1 All Ecology was commissioned to undertake an Ecological Appraisal of 61 Wentworth Drive, Pinner, Middlesex, HA5 2PX. The site comprises a vacant bungalow with an attached garage and gardens to the front, side and rear, enclosed by a mix of overgrown and recently trimmed hedges. The site is surrounded by residential houses, gardens and roads on all aspects. The surrounding area is a mosaic of built up residential areas, open fields and significant areas of woodland, which extend away to the northwest.
- 1.2 The site is the subject of a planning application to permit the demolition of the building on site as well as general site clearance to make way for a new residential development of four new dwellings.
- 1.3 The aim of the survey was to identify features of ecological interest, undertake a basic search of habitats present for evidence of use, or potential use, by protected species, and to identify any other possible ecological constraints to the development. As the proposal for the site includes the demolition of the building, a detailed internal and external inspection survey for bat roost potential was carried out as part the assessment.

Site Location



Figure 1. Site location (red line)

2.0 Methodology

Habitat Survey

- 2.1 The site was visited on the 13th August 2014 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.
- 2.2 The survey was carried out by James Godbeer BSc Hons MCIEEM, an ecologist with over 7 years experience working as a consultant. He has extensive experience of managing environmental contracts, and particular experience in surveying, assessment and mitigation for rare and protected species. He has considerable knowledge of the development and planning process including Ecological Impact Assessments, sustainable ecological design and he has completed ecology chapters of Environmental Statements. James holds protected species licences for bats (all species, all counties, Licence No. CLS01752), as well as Great Crested Newts (Licence No. CLS001752), Dormice (Licence No. 20131156) and Barn Owls (Licence No. 20123107).

Fauna

- 2.3 Habitats present on the site were searched for obvious signs of faunal activity, e.g. presence of badger setts, mammal tracks or herpetofauna under refugia. Any trees on site were visually examined from the ground to identify features with the potential to support roosting bats. The building on site was also subject to a detailed inspection survey for bat roost potential.
- 2.4 All bat species resident in the UK have been recorded using buildings and built structures as roosts at some time during the year (Hundt, 2012). The building was inspected externally and internally following the methodology set out in the Bat Conservation Trust – Good Practice Guidelines (Hundt, 2012). Equipment used to aid the survey included low and high-powered torches, ladders, endoscope and binoculars.
- 2.5 In summary the building was searched externally and then internally 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.

2.6 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.

Assessment

2.7 The surveyed building has been evaluated to assess which of the following categories it falls into, if any (Mitchell-Jones, 2004 & Hundt, 2012):

- **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.

Valuation of Ecological Features

- 2.8 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).
- 2.9 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.

- 2.10 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.

3.0 Legislation

- 3.1 The United Kingdom Biodiversity Action Plan (BAP) 1994 sets out a strategy for implementing the Convention on Biological Diversity, which was signed by the United Kingdom at the Rio de Janeiro Earth Summit in 1992. The published report contains action plans for the United Kingdom's most threatened species and habitat plans for the most vulnerable areas.
- 3.2 The Local BAP sets out the county's part in the UK biodiversity planning process, in the form of local habitat and species action plans. Local BAPs are intended to focus resources, to conserve and enhance biodiversity, by taking account of national and local priorities.
- 3.3 Schedule 1 Part 1 of The Wildlife and Countryside Act 1981 (and amendments) – this lists birds protected by special penalties at all times. It prohibits intentional killing/injuring, taking, possessing, disturbing and selling (including parts and derivatives, eggs, nests, *etc.* as applicable) as well as damaging, destroying or disturbing nests in current use or dependent young, *etc.*
- 3.4 Schedule 5 of The Wildlife and Countryside Act 1981 (and amendments) – this prohibits deliberate killing, injuring, taking, possessing, disturbing and selling (including parts and derivatives) as well as damaging, destroying or obstructing any structure or place of refuge of listed fauna, such as Dormouse, Otter and bat species.
- 3.5 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 illegal to kill, disturb, destroy eggs, breeding sites or resting places, to pick, collect, take cuttings, uproot or destroy in the wild as well as keep, transport, sell/exchange and offer for sale/exchange species listed.
- 3.6 The Countryside and Rights of Way Act 2000 – this increases protection given by The Wildlife and Countryside Act 1981 (and amendments). The offence to intentionally damage any structure or place that a wild animal listed in Schedule 5 of the Act uses for shelter or protection or deliberately disturbing any such animal while in such a structure or place is extended so that the offence also covers reckless damage or disturbance. The CRow Act also places a duty on Ministers and Government Departments to have regard for the purpose of conserving biological diversity in accordance with the Convention on Biological Diversity.
- 3.7 The Protection of Badgers Act 1992 - this Act makes it illegal to wilfully kill, injure or take any Badger, or attempt to do so and it is an offence to intentionally or recklessly damage, destroy or obstruct access to any part of a Badger sett.
- 3.8 The Natural Environment and Rural Communities Act, 2006 - as well as creating Natural England, this act gives all public authorities the duty to have regard for conserving biodiversity within the commission of their duties. This includes a duty to restore and enhance as well as maintain biodiversity. The act also strengthens protection for Sites of Special Scientific Interest (SSSI) and makes authorities liable for allowing damage to such sites or their features.

4.0 Results

Habitats

- 4.1 The site comprises the vacant bungalow and garage with a narrow walkway between the bungalow and the adjacent two storey house of the neighbouring property. A residential garden extends from the front of the house around the side of the garage and into a rear garden. Small lawns of amenity grassland are present and these are generally surrounded by overgrown species-poor hedges of Cherry Laurel and Garden Privet with occasional Hawthorn and Hornbeam, and a single apple tree. The front boundary was the exception to this where the Cherry Laurel hedge has recently been cut back. Narrow borders of neglected introduced shrub are also present.

Photograph 1: Section of front garden looking from the house.



Photograph 2: Section of front garden surrounded by recently cut Cherry Laurel hedge.



Photograph 3: Rear garden lawn surrounded by overgrown hedging.



Fauna

Bats

- 4.2 There was a vacant bungalow on site with an attached garage. Both were constructed of rendered brick and the roof of the bungalow was of hip end construction with a tiled roof. The flat roof of the garage was covered with bitumen felt. The eaves of the building were sealed with timber fascia boards and soffits. The roof space of the house was open throughout although the hipped ends reduced the overall volume. The roof was unlined and the tiles were clearly visible throughout; the floor was covered with fibreglass insulation. There was no roof space in the garage, which was open to the underside of the roof.
- 4.3 In terms of the building's potential to support bats, the main roof space provides a relatively large undisturbed space, which would be accessible through a small number of gaps between tiles; however, no evidence was found and as there was no roof lining there were no potential hidden roosting sites. The exterior of the building was in good condition with no apparent cracks or gaps in the walls. The soffits were sealed to the walls and the fascia boards were intact and in good condition. The fascia board on the side of the garage had a small gap between the board and the wall but this was easily inspected. There were a small number of gaps under roof tiles but generally they tight fitting and the mortar under the ridge tiles was generally sound. The gaps would allow access for bats into the roof void but were easily inspected from within the roof space and would not be suitable for roosting. In the absence of any evidence of bats and areas that could not be fully inspected, it has been concluded that bats are likely to be absent.

Photograph 4: Front view of the bungalow.



Photograph 5: Rear view of the house.



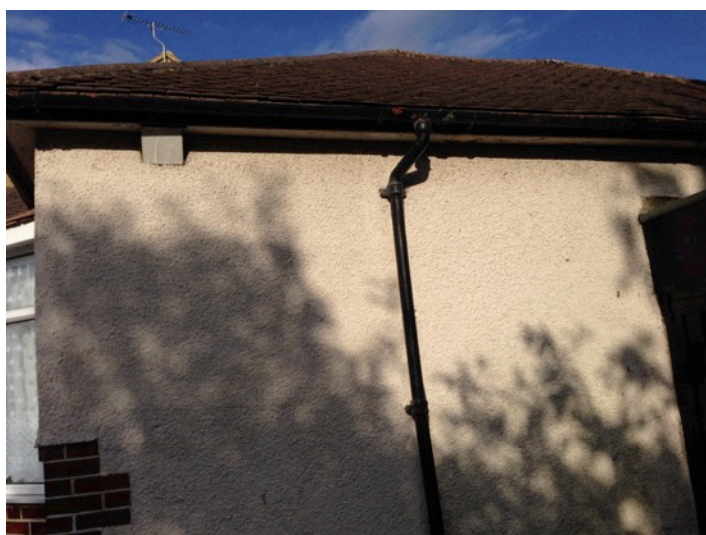
Photograph 6: View of the garage.



Photograph 7: View of roof space.



Photograph 8: View of sealed soffit on the bungalow.



Photograph 9: Small gap behind fascia board on the garage.



- 4.4 None of the trees on the site appeared to offer any features for roosting bats such as rot holes or split limbs.
- 4.5 The enclosed residential garden on site and those in the nearby area are likely to be frequented by foraging bats, and some of houses in the surrounding area likely to provide roosting sites. However, the range of species is likely to be restricted to common species of urban bats such as Common Pipistrelle with the majority of the bats interest in the general area associated with the wooded areas to the northwest.

Badgers

- 4.6 The site has small areas of amenity grassland, which provide optimal habitat for foraging Badgers. The nearby areas of woodland are likely to be used for the construction of setts but the potential for setts on site is almost negligible. The remainder of the site is buildings and hard standing, all of which are of no value to Badgers. A thorough search of the site and immediate surroundings did not reveal any evidence of Badgers such as hairs, dung pits, latrines, snuffle marks or setts and although it is possible that urban Badgers pass through on occasions, it is likely that they are generally absent from the site.

Water Voles and Otters

- 4.7 There are no watercourses on site or in the immediate vicinity. Otters or Water Voles will therefore not be a constraint to this development.

Other mammals

- 4.8 The site is expected to support a small number of common small mammals, mainly along the boundaries, but the potential for other protected species of mammals is regarded as negligible.

Birds

- 4.9 The species recorded during the survey were Blue Tit, Blackbird and Robin.
- 4.10 The trees and hedges provide limited nesting habitat for a range of bird species. However, the building is unsuitable for nesting birds and the remainder of the garden is also unsuitable. The survey was carried out in August, which is late in the nesting season; no evidence of current or previous nesting by birds was recorded.
- 4.11 In terms of foraging habitat, the site is small and any foraging habitats confined to the boundaries, which are likely to provide only a limited foraging resource for a range of urban bird species. The surrounding area is expected to support a wide range of woodland and urban bird species.

Reptiles

- 4.12 The site itself is generally unsuitable for reptiles. The site is a small residential garden and while reptiles such as Slow-worms are often found in such the gardens, the site is isolated from off site habitats and is only connected to dense areas of housing with small gardens. Reptiles are therefore expected to be absent.

Amphibians

- 4.13 There are no ponds on site and the boundary vegetation provides only a limited amount of potential terrestrial habitat. The surrounding area provides abundant terrestrial habitat in the form of woodland habitats to the northwest and a small number of ponds are also present. With regard to the specially protected Great Crested Newt, three ponds are shown on maps of the area within 500 m of the site, the closest located more than 400 m to the northwest. All are isolated from the site by built up areas or roads and in any case only ponds located within 250 m of minor developments are usually considered. Great Crested Newts are expected to be absent from the site.

Invertebrates

- 4.14 The habitats on the site are common habitats that do not provide much potential for rare invertebrate species. The site is generally expected to support only common assemblages of invertebrates.

5.0 Development Constraints and Recommendations

- 5.1 The site is the subject of a planning application to permit the demolition of the building on site as well as general site clearance to make way for a new residential development of four new dwellings. Possible ecological constraints and recommendations with regard to the potential development are discussed below.

Habitats

- 5.2 The UK BAP Priority Habitats include all hedgerows with at least 80% cover of at least one woody UK native species (JNCC, 2014). The hedging around the site was formed by non-native species and as such does not qualify as a UK BAP Priority Habitat. The habitats on site are common, of low ecological value and easily replaceable. Any loss/changes to these habitats in terms of their vegetation is considered to be negligible. There is potential for the site to be used by foraging bats, birds and small mammals; this is discussed below.

Protected and Notable Species

Bats

- 5.3 The building on site is to be demolished. No evidence of bats was recorded within the building and there were no external features that could not be fully inspected. In particular, a roof lining was absent leaving an accessible roof space for bats but no small voids for species such as pipistrelles, the most likely species to occur on site. It has been concluded that roosting bats are likely to be absent and no further surveys are recommended.

Legal Compliance

- 5.4 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. The above can only be carried out under a European Protected Species (EPS) licence granted by Natural England. Based on the results of the present survey it has been concluded that roosting bats are likely to be absent from the site and an EPS licence will not be required to permit the proposed development.

Trees

- 5.5 The trees were not of sufficient age and size to have any features for roosting bats and no restrictions on the felling of these trees or tree surgery works, if required, with regard to bats are necessary.

Provision for Bats

- 5.6 The wider area is a mosaic of woodland habitats and built up areas, which are expected to support a variety of bats. However the site itself is small and not well connected to the wider area, any bat activity on site is likely to be restricted to Common Pipistrelles, which readily inhabit built up areas. The majority of the site is already partially lit by adjacent street lighting and although Common Pipistrelles are particularly tolerant of high light levels, it is

recommended that any new external lighting be kept to a minimum in line with current best practice.

- 5.7 The types of residential buildings proposed for the site means that the provision of large open roof spaces for species such as long-eared bats is unlikely to be feasible and any such provision would not be a worthwhile exercise as this species is unlikely to be present. There are many ways in which the buildings could be enhanced for crevice-dwelling species without inconveniencing prospective occupants. Special bricks and/or bat panels are some of the methods used to provide roosting sites for bats.

Care and Vigilance during Works

- 5.8 During the demolition works the contractor should be advised to adhere to the following procedures in the highly unlikely event 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

Badgers and other mammals

- 5.9 The potential for other protected or notable mammal species to use the site is deemed to be low. No constraints are predicted as a result of the potential occasional presence of passing Badgers, or the likely presence of common small mammals. As a precaution it is recommended that during the construction phase of the project any trenches and other excavations are back-filled before nightfall or a ramp left to allow animals to easily exit, and any open pipes larger than 150 mm should be capped off overnight.

Birds

- 5.10 Of the species observed on site during the survey, all were common and not rare or notable species. No evidence of previous nesting by birds was noted but there is potential for birds to nest in the boundary hedges and trees during subsequent nesting seasons.
- 5.11 Nesting birds are protected under The Wildlife and Countryside Act 1981 (and amendments). It is recommended that any vegetation clearance be carried out outside of the bird-nesting season of March to August. Where this is not possible, the vegetation should be surveyed for nesting birds by a suitably qualified ecologist prior to works commencing. If they are found, then the nest and surrounding habitat must remain intact until the young have fledged.
- 5.12 The creation of new residential gardens is likely to provide foraging and nesting habitats and specific features could be incorporated into the buildings, which would further enhance the site for birds.

- 5.13 Nesting features for Swifts and House Martins could be installed under the eaves or on north-facing gables at a height of at least 6 m. Colony type boxes could also be installed at a height of least 2 m to provide nesting sites for birds such as House Sparrows and Starlings, which are known to be present in the area and have experienced rapid declines and are UK BAP Priority Species (JNCC, 2014a).
- 5.14 The proposed development will result in the loss of areas of overgrown garden, which are unlikely to be important to foraging birds in the wider context. New planting should concentrate on 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 References

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

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

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-> [accessed on 15th August 2014].

Hundt (2012). *Bat Surveys: Good Practice Guidelines*. 2nd Ed. Bat Conservation Trust: London.

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

Joint Nature Conservation Committee (2014a). *UK BAP Priority Habitats*. [Online]. Available at: <http://jncc.defra.gov.uk/page-5718> [accessed on 15th August 2014]

Joint Nature Conservation Committee (2014b). *UK BAP Priority Species*. [Online]. Available at: <http://jncc.defra.gov.uk/page-5717> [accessed on 15th August 2014]

Mitchell-Jones, A.J. (2004). *The Bat Mitigation Guidelines*. English Nature: Peterborough.

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

The Protection of Badgers Act 1992, (c.51), London: HMSO.

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