# PRELIMINARY ECOLOGICAL ASSESSMENT

## SCEAUX GARDENS,

## DALWOOD STREET, CAMBERWELL, LONDON



Commissioned by: Southwark Council

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#### **EXECUTIVE SUMMARY**

- 1. The main protected species potential present within the Sceaux Gardens application site, as identified during this updated ecological assessment, was for: nesting birds and bats only.
- 2. There was a single woodpigeon nest found within a holly tree within the parkland, demonstrating that breeding birds are present within the application site. The trees, shrubs and hedges all have nesting bird structure, as would be expected, and the further occasional hidden bird nest is possible within dense vegetation.
- 3. There is limited bat roosting potential within the external features at the blocks to be demolished. The blocks at Florian and Racine are well sealed in terms of external features overall, although the occasional crevices were present.
- 4. The garage units could not be searched due to a lack of access, so this will need to be addressed, so the garage interiors can be discounted as bat roosts, if that is the case.
- 5. There is bat roosting potential though within some of the trees at the parkland area, as was the case in 2016. Cavities are present in some trees and these features will have value for roosting bats such as common pipistrelles.
- 6. Further investigation will be required on bats at selected buildings and trees, so to ensure that there will be no negative impact on the species present in the area.
- 7. A range of biodiversity enhancements have also been put forward for consideration, in regards to compensating for the proposed new scheme, which will result in a biodiversity net gain, which is now essential for all developments. Although, these options may be revised based on the further survey work being recommended at this site.
- 8. Therefore, specific further follow-up key actions are now needed at the application site, based on the results of this ecological investigation.

### **1. INTRODUCTION**

- A Preliminary Ecological Assessment of Sceaux Gardens, Dalwood Street, Camberwell, London, was undertaken during February 2021, for the client: Southwark Council.
- This assessment is required due to the proposal to redevelop the application site, including the demolition of the blocks, Florian and Racine, as well as the garage units to the east of Marie Curie.
- The main method used for this ecological assessment, as well as the full results and the key recommendations can be found within this report. This report is an update to the 2016 ecology survey by ASW Ecology.
- Both this assessment and the report were undertaken and compiled by Mr Andrew S. Waller, Consultant Ecologist, ASW Ecology, with the kind help from an assistant.
- Mr Andrew S. Waller MSc BSc (Hons) MCIEEM has been a Consultant Ecologist since 1997, and has very extensive experience/knowledge of protected wildlife species/issues including bats, for which he is fully licensed to survey throughout England by Natural England for consultancy purposes (Bat Class 2 Licence Registration Number: 2015-15703-CLS-CLS). He also has Natural England survey licences for great crested newts and barn owls. He has been studying bats for 28 years and wildlife in general for 40 years. He is a Full Member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and meets the requirements of being a Suitably Qualified Ecologist.

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#### 2. METHODOLOGY

#### 2.1 Preliminary Ecological Assessment method

- A daytime based Preliminary Ecological Assessment was undertaken at the Sceaux Gardens application site, on 13/2/2021, by a qualified and experienced Consultant Ecologist, with an assistant and a collapsible ladder.
- The method used for assessing habitat types followed that outlined by the Nature Conservancy Council Phase 1 survey methodology (JNCC, 1993). Please see Section 3.8 for the habitats listed from the site and the relevant codes given to these.
- Weather conditions were good during the visits eg part cloudy, cold, dry and with a light wind plus visibility was excellent. During the visits, the application site was assessed for its suitability for various protected wildlife species and habitats.
- The focus on habitats and protected species potential included on bats, reptiles, great crested newts, badgers and breeding birds in particular. The key methods used for this specific site are listed below:
- **Bats:** The existing buildings were searched for any bat evidence as well as features that provide bat roosting potential, such as crevices behind roof tiles, ridge tiles, hanging tiles, slates, fascias, lead flashing, roofing felt on flat roofs and guttering boards. Trees were also assessed for features that offer bat roosting opportunities, including for the presence of knot holes, woodpecker holes, frost cracks, splits and dense ivy cover, for example. Any holes would be assessed too for any staining around them or running down from any cavity entrance, as well as for the presence of bat droppings below the tree.
- **Badgers:** The presence of badgers was assessed by finding potential evidence such as setts, latrines, paths through vegetation and for badger hair on any fences.
- **Breeding birds:** the presence of occupied bird territories was assessed by nest presence in vegetation and buildings, as well as singing male birds within the site. Birds would have recently started nesting so this visit was timed for the breeding bird season.
- **Reptiles/Great Crested Newts:** The presence of both groups was assessed by habitat types present and if suitable for species such as great crested newts in their terrestrial phase and for reptiles such as slow-worm and common lizard.

#### 2.2 Assessment constraints

- The main constraint to this daytime based assessment was the timing of this study, where it was only possible to survey during the Winter period, for example, due to the commissioning of this study. However, given the actual assessment results, this is seen as a minor constraint only, since it is also not possible to survey any site all year round.
- As always though, without taking into account any further active surveying or monitoring, this study can only provide a "snapshot" of the potential presence of protected wildlife species at the site during the time of the assessment visit.
- There was also no access into any of the buildings to be demolished at the site.

### **3. ASSESSMENT RESULTS**

### 3.1 Birds

- A woodpigeon nest was found within a holly tree at the parkland and this nest is considered active, as was complete. Further occasional concealed bird nests from the start of the bird nesting season could have been present within the denser vegetation present such as ivy cover on the trees.
- The trees, shrubs, hedges and ivy cover therefore do have breeding bird structure, as would be expected at any similar site.
- Bird species seen or heard closeby to the development footprint during the survey visit included herring gull, woodpigeon, feral pigeon, robin, blackbird, great tit, magpie and carrion crow.
- It is highly unlikely that any rare breeding species would be nesting at the application site.
- The buildings within the site, such as the two blocks and the garage units are unlikely to have nesting birds, given the lack of access noted overall.

#### 3.2 Bats

#### 3.2.1 Building assessment – 13/2/2021

Building description:	<ul> <li>Racine: Row of brick bungalows with corrugated metal roofs</li> <li>Florian: Row of brick bungalows with corrugated metal roofs</li> <li>Garages: This is a row of garage units, with flat roofs and metal doors</li> </ul>
External bat survey	<ul> <li>Racine: Minor crevices behind the corrugated metal present but unclear if a viable crevice is there for bats</li> <li>Florian: Minor crevices behind the corrugated metal present but unclear if a viable crevice is there for bats</li> <li>Garages: Occasional crevices around doors</li> </ul>
Internal bat survey	<ul> <li>Racine: No internal access present on this visit</li> <li>Florian: No internal access present on this visit</li> <li>Garages: No internal access present on this visit</li> </ul>

Bat evidence present	<ul> <li>Racine: None</li> <li>Florian: None</li> <li>Garages: None</li> </ul>
Other wildlife evidence present	<ul> <li>Racine: None</li> <li>Florian: None</li> <li>Garages: None</li> </ul>
Overall bat roost grading for the buildings	<ul> <li>Racine: LOW</li> <li>Florian: LOW</li> <li>Garages: LOW</li> </ul>

#### 3.3 Badger

- There were no badger setts present at the application site, with no badger evidence present either such as latrines, footprints, feeding remains, bedding from a sett or badger hair.
- Badgers are not found within this part of London, as shown in the GIGL based desktop study results, mainly due to the busy roads being present, which will act as impassable barriers.
- Badgers will therefore not be impacted in anyway by the proposed development.

#### 3.4 Reptiles

- There is no reptile potential within the development footprint, based on the results of this investigation.
- The application site consists of mainly very short mown grassed areas, with hardstanding and buildings too. These have no interest for reptiles and provide no cover or shelter from predators, such as cats and kestrels.
- The lack of tall vegetation at this site, means there are no features to attract reptiles into the application site.
- There were also no reptile records present within the GIGL based desktop study, with local busy roads, being an impassable barrier to reptile colonisation.
- There is no risk of any reptiles being present at the development footprint due to the above and therefore reptiles will not be impacted by the development proposal.

#### 3.5 Great crested newts

- There is also no great crested newt potential within the development footprint, based on the results of this investigation.
- The application site consists of mainly very short mown grass lawns, with hardstanding and buildings. These have no interest for amphibians and provide no cover or shelter from predators, such as cats and kestrels.
- There were also no great crested newt records present within the GIGL based desktop study, with local busy roads, being an impassable barrier to any colonisation.
- The lack of tall vegetation and ponds at this site though, means there are no features to attract newts into the application site.
- There is no risk of any great crested newts being present at the development footprint due to the above and therefore reptiles will not be impacted by the development proposal.

#### 3.6 Hedgehogs

- Hedgehogs are known to be present within the wider area, as shown from the GIGL desktop study results, but there were no field signs such as droppings to suggest they have visited the stated development footprint.
- Hedgehogs are a Priority Species in England within the UK Biodiversity Action Plan.
- Therefore, it is still vital that hedgehogs are not impacted during the proposed development related works. This should include no uncovered hole being present during any future potential works at this site and that no hedgehogs are injured or killed during any future vegetation clearance.

#### 3.7 Invasive plant species

- The following non-native invasive plant species noted at the time of the assessment visit was:
  - Buddleia Located at the front of Florian.
  - Snowberry Located within the parkland area.

#### 3.8 Habitats present

The main habitat types present within the Sceaux Gardens application site are the following, with the JNCC habitat codes listed:

- Scrub (Scattered) A2.2 includes bramble in front of the hedge line and fence.
- Parkland A3.1 includes grasses such as perennial rye grass plus cleavers, common daisy, common nettle, fat hen, common chickweed, creeping buttercup, thistle species, petty spurge, dandelion and with planted daffodils. Trees within the parkland include London plane, false acacia, occasional conifer species, sycamore, yew, holly and ash.
- Introduced shrubs J1.4 includes non-native species present such as snowberry, buddleia, bay laurel and ornamental rhododendron.
- Hedges J2.1.2 Includes the boundary hedges with ivy growing through.
- Buildings J3.6 these include the residential blocks Florian and Racine plus the garage units, as well as all associated hardstanding.

### 3.9 Desktop study – GIGL

• A formal GIGL biological data search (1km radius) was requested by the client in Winter 2021 and the summary results can be found below. This is a selection of the results provided by GIGL. Please see the full GIGL data report (Ref 14602) for all species included:

Statutory Sites	None present	
Non-Statutory Sites	<ul> <li>7 SINCs present:         <ul> <li>Grove Park Cuttings</li> <li>Burgess Park</li> <li>Lettsom Gardens</li> <li>Benhill Road Nature Garden</li> <li>Lucas Gardens</li> <li>Bellenden Road Tree Nursery</li> <li>Bellenden Road Tree Nursery (SoL34)</li> </ul> </li> <li>0 RIGS/LIGS present</li> </ul>	
Habitats	<ul> <li>Please see GIGL report as is extensive as contains 3 pages of Survey Data</li> <li>BAP Condition Assessment &amp; Habitat Suitability – present in report</li> <li>Open Space Data – also present in the report</li> </ul>	
Species (499 records)	<ul> <li>Protected and notable species – includes records for:         <ul> <li>Amphibians – 2 including common toad and common frog</li> <li>Reptiles – 0</li> <li>Birds – 25 including kestrel, red kite, tawny owl, stock dove, swift, house martin, song thrush, mistle thrush, house sparrow and starling</li> <li>Terrestrial mammals – 1 – hedgehog</li> <li>Bats – 6 including serotine, noctule, Leisler's bat, common pipistrelle, soprano pipistrelle, Nathusius's pipistrelle</li> <li>Flowering plants – 55 including box, small teasel, sea buckthorn, medlar, tower mustard, wild cabbage, caraway, conflower,</li> </ul> </li> </ul>	

0	bluebell, henbane, cat mint, marsh dock, arrowhead, London rocket, yellow vetch and mistletoe Invertebrates – 29 – including stag beetle, brown argus, dingy skipper, Jersey tiger, red-belted clearwing, cinnabar and banded dark bee
<ul> <li>London in from 81 re</li> <li>o</li> </ul>	vasive species (LISI Species) – 30 species cords Includes tree of heaven, three-cornered garlic, buddleia, Cotoneaster species (x3), Japanese knotweed, giant hogweed, small balsam, parrot's feather, cherry laurel, false acacia, snowberry, Spanish bluebell, Turkey oak, green alkanet, snowberry, ring-necked parakeet

#### 4. CONCLUSIONS

#### 4.1 Significance of the Ecological Assessment results

- In summary, the main protected species potential present within the Sceaux Gardens application site, as identified during this updated ecological assessment, was for: nesting birds and bats.
- A single woodpigeon nest was found within a holly tree within the parkland, demonstrating that breeding birds are present within the application site.
- The trees, shrubs and hedges all have nesting bird structure, as would be expected, and the further occasional hidden bird nest is possible within dense vegetation.
- There is limited bat roosting potential within the external features at the blocks to be demolished. The blocks at Florian and Racine are well sealed in terms of external features overall, although occasional crevices were found to be present.
- The garage units could not be searched due to a lack of access, so this will need to be addressed, so the garage interiors can be discounted as bat roosts if that is the case.
- As during the previous 2016 ecology survey, there is bat roosting potential within some of the trees at the parkland area. Cavities are present in some of the trees and these features will have value for roosting bats such as common pipistrelles.
- A total of six bat species have been recorded by GIGL within 1km of the application site, as shown in the desktop study. This shows the bat diversity is quite high within this urban area and all of the stated species will roost in trees, as well as within buildings too. Further investigation on bat presence at the application site will be needed given this species diversity and that common pipistrelles were present in the previous 2017 bat emergence survey at Sceaux Gardens.
- There is clearly no potential for reptiles, great crested newts or badgers, mainly due to the highly urbanised character of this part of London and the presence of very busy roads, which will act as impassable barriers to colonisation.
- Overall though, no rare wildlife or habitats were present at the application site. The previous block with the doctor's surgery had been demolished since 2016 so the survey area was smaller than before.
- Therefore, the application site, based on the evidence, is still of low ecological value, although the parkland trees, especially those with damage present, will be of value to local wildlife within such an urban setting.
- Please see the next chapter of this report for the key actions now required at Sceaux Gardens, especially in regards to bats an nesting birds.

#### 4.2 Impact assessment

In the absence of any mitigation measures, the following potential impact status identified on relevant wildlife species from the proposed development at Sceaux Gardens are considered to be:

**Reptiles:** Without any mitigation, there is no risk only of reptiles being injured or killed, during the future site works. **Potential impact level: Nil** 

**Great crested newts:** With no mitigation, there would still be no risk of great crested newts being impacted by the future site works. **Potential impact level: Nil** 

**Bats:** Without any mitigation, bats could be impacted by the proposed works on the building and trees present eg if an occasional bat roost is present, which is currently unknown. **Potential: Moderate – This grading will be revised after completion of the recommended follow-up bat emergence survey** 

**Badgers:** Without any mitigation, badgers would not be disturbed by the proposed works, nor any badger tunnels being collapsed or a sett present being damaged and destroyed. **Potential impact level: Nil** 

**Nesting birds:** Without any mitigation, there is a risk of potential nesting bird species being impacted during the works phase, with the occasional nest being damaged or destroyed. **Potential impact level: Low/Moderate** 

# 4.3 Summary of the legal protection of relevant wildlife in the UK (Simplified summary only of the legislation – please see other texts for full details)

#### 4.3.1 THE LEGAL PROTECTION OF REPTILES IN ENGLAND AND WALES

In the UK, reptiles are legally protected from intentional killing and injuring, as well as against sale too under the Wildlife and Countryside Act 1981 (as amended). The offences stated may be absolute, intentional, deliberate or reckless (English Nature, 2004).

This means that reasonable steps must always be taken to avoid killing or injuring all reptiles if they are known to be present within the development footprint. A criminal conviction for injuring or killing reptiles could result in large fines being imposed, imprisonment and/or seizure of the equipment involved.

### 4.3.2 THE LEGAL PROTECTION OF BATS IN ENGLAND AND WALES

#### Introduction

All species of bats in England and Wales are protected by law. Their legal protection derives from two sources:

- the strict species protection provisions of the EU Habitats Directive as implemented in England and Wales by Part 3 of the Conservation of Habitats and Species Regulations 2010 (the "2010 Regulations"); and
- Part 1 of the Wildlife and Countryside Act 1981 (as amended).

#### Conservation of Habitats and Species Regulations 2010 ("2010 Regulations")

The 2010 Regulations came into force on 1 April 2010. They replace the previously applicable regulations (Conservation (Natural Habitats, &c) Regulations 1994) in relation to England and Wales. The 2010 Regulations are the principal means by which the EU Habitats Directive is transposed in England and Wales.

The Regulations contain a number of Parts but Part 3 sets out the protection to be afforded to "European Protected Species" ("EPS"), which includes all species of British bats. The list also includes other species which are rare on a European scale, such as great crested newts, otters and dormice.

Under Part 3 of the 2010 Regulations both bats themselves and their "breeding sites and resting places" (most commonly their roosts) are protected.

Part 3 provides that it is a criminal offence to do the following (note that this is not an exhaustive list of all offences but rather a list of offences which will be of most relevance to developers):

- a. to damage or destroy a breeding site or resting place of a bat (Reg 41(1)(d));
- b. to deliberately capture, injure or kill any bat (Reg 41(1)(a));

- c. to deliberately disturb bats [note, wherever they are occurring] (Reg 41(1)(b)), in particular:
  - i. any disturbance of bats which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young (Reg 41(2)(a)(i)); or
  - ii. any disturbance of bats which is likely to impair their ability to hibernate or migrate (Reg 41(2)(a)(ii)); or
  - iii. any disturbance of bats which is likely to affect significantly the local distribution or abundance of the species to which they belong (Reg 41(2)(b));
- d. to have in one's possession or to control or to transport or to sell or exchange or offer to sell or exchange any live or dead bat or part of a bat which has been taken from the wild; or any part of, or anything derived from, a bat or any part of a bat (Reg 41(3) and (4)); and
- e. to attempt any of the above (Reg 116(1)).

The maximum penalty that can be imposed for the above offences is (as at May 2010) a fine of up to £5,000, and/or up to six months imprisonment. The offences can be committed by individuals or by bodies corporate. Where a body corporate has committed the offence, the directors or officers of the company may also be prosecuted if the offence has been committed with their consent or connivance, or is attributable to their neglect (Reg 124).

#### Wildlife and Countryside Act 1981 ("WCA 1981")

The WCA 1981 protects a wide range of animals, plants and habitats in the UK. All British bat species are afforded protection under Part 1 of the WCA 1981, in addition to the protection they have under the 2010 Regulations.

As regards England and Wales the following offences apply to protect bats under the W&CA 1981:

- a. to intentionally or recklessly disturb any bat while it is occupying a structure of place which it uses for shelter or protection (s9(4)(b) WCA 1981);
- b. to intentionally or recklessly obstruct access to any structure or place which any bat uses for shelter or protection (s9(4)(c) WCA 1981);
- c. attempting either of the above (s18(1) WCA 1981).

The maximum penalty that can be imposed for the above offences is (as at May 2010) a fine of up to  $\pounds 5,000$ , and/or up to six months imprisonment. The offences can be committed by individuals or by bodies corporate. Where a body corporate has committed the offence, the directors or officers of that company may also be prosecuted if the offence has been committed with their consent or connivance or is attributable to their neglect (s69(1) WCA 1981).

#### 4.3.3 THE LEGAL PROTECTION OF BIRDS IN ENGLAND AND WALES

All birds have the following legal protection (although there are exceptions for game birds, some waterfowl and designated pest species). This is listed below.

All birds, their eggs and nests are protected by law under the Wildlife and Countryside Act 1981 (as amended). It is an offence to kill, injure or take any wild bird, or to take or destroy their eggs. It is also illegal to take, damage or destroy the nest of any wild bird while it is in use or being built (RSPB, 2001). No provisions can be made for the destruction of occupied bird nests, eggs, or young for development purposes, and no licences are available for this purpose.

Certain rare and/or vulnerable bird species such black redstart, barn owl, red kite, peregrine and hobby are specially protected under Schedule 1, and have the following additional legal protection:

• It is an offence to intentionally (or recklessly, in England and Wales only) disturb any wild bird listed on Schedule 1 whilst it is nest building or is at (or near) a nest with eggs or young; or disturb the dependent young of such a bird.

# 4.3.4 THE LEGAL PROTECTION OF GREAT CRESTED NEWTS IN ENGLAND AND WALES

Great crested newts have strong legal protection under both British and European legislation. This is briefly summarised below:

Great crested newts are legally protected under provisions within the Wildlife and Countryside Act 1981 (as amended), the Conservation Regulations 2010 and the Countryside and Rights of Way Act 2000. Taken together, it is illegal to:

- Intentionally or deliberately capture or kill, or intentionally injure great crested newts.
- Deliberately disturb great crested newts or intentionally or recklessly disturb them in a place used for shelter or protection.
- Damage or destroy a breeding site or resting place.
- Intentionally or recklessly damage, destroy or obstruct access to a place used for shelter or protection.
- Possess a great crested newt, or any part of it, unless acquired lawfully.
- Sell, barter, exchange or transport or offer for sale great crested newts or parts of them.

The maximum penalty that can be imposed for the above offences is (as at May 2010) a fine of up to  $\pounds$ 5,000, and/or up to six months imprisonment. The offences can be committed by individuals or by bodies corporate.

#### 4.3.5 THE LEGAL PROTECTION OF BADGERS IN ENGLAND AND WALES

In the UK, the Protection of Badgers Act 1992, is the most relevant to this mammal species. Under this legislation, it is illegal to injure, kill or take any badger or attempt to do so without a special licence. It is also illegal to dig for a badger, and to damage, destroy or obstruct access to any part of a badger sett, or to allow a dog to enter the sett, or to disturb a badger whilst it is occupying a sett.

Certain offences can be caused by reckless, intentional or wilful behaviour, and the Act should always be read in detail for the exact wording.

Penalties for such offences can be severe, and can include fines of up to £5,000 per offence eg per badger sett or per badger, and/or up to six months imprisonment.

#### **5. RECOMMENDATIONS**

#### 5.1 Requirement for a follow-up bat emergence survey

- It is recommended that a standard bat emergence survey is undertaken of specific buildings and trees, in suitable weather conditions, for evidence of emerging bats during the active flight season.
- Such a follow-up survey would adhere to current best practice for surveying bats by the Bat Conservation Trust (BCT, 2016) where a site such as this, with higher bat roosting potential, warrants a specialist bat survey of three night based survey visits by experienced bat surveyors with bat detectors. Or the visit can be a dawn based survey visit.
- This bat survey should be undertaken between late April to late September when bats are most active and to follow best practice guidance.
- The survey would focus on any bat roosts being present at the buildings and trees identified as having bat roosting features. Also, both key bat commuting routes at the site as well as any key foraging areas would be noted.
- The bat survey visit should use a sufficient number of experienced bat surveyors, to survey all buildings and trees with bat roosting potential, with bat detectors, and begin before sunset and last for approximately 2 hours. Or any dawn survey visit should start 2 hours before sunrise.
- Any bat sightings, any bat roosts and any key bat related features will all be plotted on maps for the future follow-up bat survey report.

#### 5.2 Vegetation management at the application site

- It is important that the existing grassed areas at the application site continue to be managed as short mown at all times and on a regular basis by the client.
- These short grass areas must be managed regularly so this does not become overgrown.
- This would remove any remote possibility of the occasional reptile using any potential new habitat for genuine shelter or foraging.
- This is a reasonable step to avoid any possible impact on any reptile species in the much wider area.
- This pro-active approach should continue as per usual and certainly until the development has been completed.

#### 5.3 Best practice guidance – breeding birds and development

- As per any development related site, the general advice is that no vegetation eg trees, bushes, shrubs, hedges, bramble scrub or dense ivy cover should be removed during the bird nesting season as all bird nests are fully protected by law, and this includes whilst a nest is being built by the adult birds. This includes both buildings and also bird boxes, where nesting birds have been shown to be present.
- If any nests are present within the boundaries of the proposed development footprint during the construction phase, then these must be left alone until the young birds have fully fledged from the nest and no further breeding attempts are to take place.
- The bird nesting season in the UK, currently runs mainly from mid-January to September, but sometimes birds can start breeding before or after this period.
- Therefore, September to early January can be the best months for such vegetation clearance works, if this is to occur. Although it is possible for a consultant ecologist to physically search the vegetation eg trees, bushes, shrubs, hedges and ivy cover, at a given site to ensure no hidden nests are present beforehand.

#### 5.4 Biodiversity enhancements for the new development scheme

# 5.4.1 Bat boxes – This initial advice will be revised after the recommended bat emergence survey has been completed

- It will be recommended to install at least three to four bat boxes at the new development scheme for local bats to use.
- The bat box model proposed would be the 2F Schwegler Bat Box and this is a high quality bat box which will be used by a number of different bat species. This box is made of woodcrete and is a long lasting box.
- The bat boxes can be located on separate mature trees at the site, so there is a better chance of them being used by bats.
- Bat boxes should be installed at least six metres up a tree trunk, facing SE, S or SW ideally and with enough space for bats to fly under the box easily. No artificial lighting must illuminate any of the installed bat boxes as this would deter bats from using the boxes.
- The NHBS is a good ecological equipment supplier and this bat box model can be purchased from them. The web link for this bat box is:

http://www.nhbs.com/title/158629/2f-schwegler-bat-box-general-purpose

#### 5.4.2 Wildlife friendly planting

- It would also be advantageous if any wildlife friendly planting can be introduced to the new landscaping scheme, by the use of night scented plants, which will attract insects which bats, for example, will prey on.
- Native plants should always be chosen ideally, since these species will have the most benefits to wildlife. But the occasional non-invasive hybrid or exotic would be fine.
- Suitable border plant species can include corn flower, field poppies, mallow, evening primrose, ox-eye daisy, primrose and yarrow.
- Herbs can also be very good for insects and include borage, coriander, fennel, lavender, rosemary and thyme.
- Trees, shrubs and climbers suitable for insects, so to benefit bats, include dog rose, elder, gorse, guilder rose, hawthorn, blackthorn, hazel, honeysuckle, clematis, ivy and jasmine. Further information can be provided on the above if needed.

#### 5.4.3 Bats and lighting

- It will also be important that dark corridors are maintained for bats such as the adjacent treelines and hedges. This will mean that bats, if present, use the site in the future, especially whilst commuting between sites.
- Artificial lighting can cause a vacuum effect at greenspaces and at other sites, where such artificial light will pull flying insects at night away from areas where bats feed. So adjacent darker areas will have less insects for bats to survive on and that negatively affects the life cycles of the insect species present.
- If lighting is added in the future, this should be bat friendly and adhere to best practice on this aspect.
- Low pressure sodium lights are better to use than high pressure ones in regards to the impact on bats, for example.
- In regards to any future lighting, it would be beneficial for both insect populations and for bats, any new lighting is switched off at the new site well before midnight or be based on sensors.
- Light spillage should also be curtailed, as hoods can be used and light should focus on where it is needed only.
- Screening by vegetation such as new trees and shrubs can also be used to mitigate the effects of any new lighting scheme.
- The following latest best practice guidance note should be read and followed, in regards to how lighting affects bats and how to mitigate this at a site:

https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/

#### 5.4.4 Bird nest boxes

- Bird boxes can be installed at the site and three suitable models can be found below:
- The 1B Schwegler Nest Box would be a good model to have installed at the site, since a range of birds are present already. This model would benefit blue and great tits especially.
- New bird nesting boxes should be installed as widely spaced apart as possible. The exact number of boxes will need to be appropriate for the size of the application site as nest boxes should not be located close together. But one to two nest boxes would be suitable.
- The NHBS is a good ecological equipment supplier and this nest box model can be purchased from them. The web link for this bat box is:

http://www.nhbs.com/1b-schwegler-nest-box

- In general, bird boxes should be spaced widely apart, away from any bird feeders, quite high up a tree (ideally at least five metres up from ground level but higher in urban areas ideally), facing North to East only and away from cats.
- Further boxes to be installed include both swift and house sparrow nest boxes. These can be installed as one per new building. Please see the links below for these nest boxes:

House Sparrow Terrace: <u>https://www.nhbs.com/1sp-schwegler-sparrow-terrace</u>

Swift triple cavity nest box: <u>https://www.nhbs.com/no-17a-schwegler-swift-nest-box-triple-cavity</u>

#### 5.4.5 Insect nest boxes

- Finally, invertebrate nesting boxes will also be provided in the new landscape scheme. Such bug boxes should be installed in a warm and dry place at the site, near to vegetation. Such boxes will benefit lacewings, solitary wasps, ladybirds and other species.
- Suitable models from the NHBS include the following, with one of each box being appropriate:
  - Schwegler Clay and Reed Insect Nest -

https://www.nhbs.com/equipment/nest-boxes-habitats-andfeeders?hPP=30&idx=titles&p=0&hFR%5Bsubjects\_equipment.lvl1%5D%5B0%5D=Nes t%20Boxes%2C%20Habitats%20and%20Feeders%20%3E%20Insect%20Boxes&is\_v=1 &qtview=181090

• Solitary beehive –

https://www.nhbs.com/equipment/nest-boxes-habitats-andfeeders?hPP=30&idx=titles&p=0&hFR%5Bsubjects\_equipment.lvl1%5D%5B0%5D=Nes t%20Boxes%2C%20Habitats%20and%20Feeders%20%3E%20Insect%20Boxes&is\_v=1 &qtview=186142

### 5.4.6 Hedgehog doorways in fence panels

- It is also proposed that pre-fabricated holes in boundary fence panels are permitted at regular intervals at the new development scheme, so that hedgehogs are able to commute within the local landscape, without any blockages in their pathways.
- The new doorway should measure 13cms x 13cms in terms of width and length so hedgehogs can fit through.
- The following web link from the Wildlife Trusts provides very useful information on creating new hedgehog doorways:

https://www.wildlifetrusts.org/actions/how-create-hedgehog-hole

#### 5.5 Requirement for an internal bat assessment of the buildings

- Either before or on the day of commencement of demolition of the buildings and garage units to be removed, there should be an internal inspection of these structures by the licensed bat consultant. Since it is unknown if there is any bat roosting evidence or potential within any of these buildings.
- Therefore, Florian, Racine and the garage blocks, to the east of the Marie Curie block, must all be checked for bats and bat droppings, if it is safe to enter these structures.
- There must be no asbestos present within the buildings that surveyors may come in contact with, no active wasp nests and no structural issues, in regards to safe access needed.

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# **APPENDIX 1**

## **PHOTOGRAPHS A-M**



Photograph A Garages with limited bat roost potential



**Photograph B** Parkland with bird nesting potential within the trees and vegetation



**Photograph C** Scrub fringe and hedgerow, with bird nesting potential



**Photograph D** Snowberry present next to a boundary hedge. This is a non-native invasive shrub species that should be removed from the site



Photograph E Bird nest within the holly trees within the parkland



Photograph F Racine – This row of dwellings has limited bat roost value



Photograph G Racine – Occasional crevices present under metal cladding and under roof sheets



Photograph H Florian with buddleia present at the front gardens. This row of dwellings has limited bat roost potential



Photograph I Frontage of Racine – With short mown grassland of low ecological value



Photograph J Large tree specimens with cavities and a bird nest box are present within the parkland



### Photograph K

Cavity within top of tree, with both nesting bird and bat roosting potential



### Photograph L

Cavity within tree – With bat roosting potential and could be used by nesting birds possibly



### Photograph M

Crevice within tree trunk – This feature has some bat roosting value as this is upwards orientated

# **APPENDIX 2**

## MAP A – PHASE 1 HABITAT MAP WITH TARGET NOTES

