



Biodiversity Management Plan

Introduction

Site name

Former Glendene Assessment Centre, Greenbrow Road, Wythenshawe, M23 2RE.

Purpose of report

Ostara Ecological Services Ltd was commissioned to produce a Biodiversity Management Plan (BMP) for Former Glendene Assessment Centre, Greenbrow Road, Wythenshawe, M23 2RE. This report has been prepared in order to discharge Condition 22 and 23 for full planning permission for the site:

22) Prior to occupation, a "lighting design strategy for biodiversity" for areas to be lit shall be submitted to and approved in writing by the local planning authority. The strategy shall:

a) identify those areas/features on site that are particularly sensitive for hedgehogs and bats and that are likely to cause disturbance in or around their breeding sites and resting places or along important routes used to access key areas of their territory, for example, for foraging; and b) show how and where external lighting will be installed (through the provision of appropriate lighting contour plans and technical specifications) so that it can be clearly demonstrated that areas to be lit will not disturb or prevent the above species using their territory or having access to their breeding sites and resting places.

All external lighting shall be installed in accordance with the specifications and locations set out in the strategy, and these shall be maintained thereafter in accordance with the strategy. Under no circumstances should any other external lighting be installed without prior consent from the local planning authority.

Reason - To ensure the protection of habitat of species that are protected under the Wildlife and Countryside Act 1981 or as subsequently amended in order to comply with policy EN15 of the Core Strategy.

23) The approved scheme for the provision of bat and bird boxes within the development as set out in condition discharge application reference CDN/22/0886 as received by the City Council as local planning authority on the 7th December 2022 shall be implemented prior to first occupation of the development and shall be retained thereafter.

Reason - To ensure the protection of habitat of species that are protected under the Wildlife and Countryside Act 1981 or as subsequently amended in order to comply with policy EN15 of the Core Strategy.

In conjunction

The information given in this report is based on the findings of previous surveys and reports. This report should be read in conjunction with the reports listed below:

- ★ LM0051EclAGlendene Wythenshawe Rev A-min - LM Ecology (February 2020)
- ★ GD-BTP-00-SP-DR-A-3375_205H - Bird and Bat box location (August 2022)
- ★ GD-BTP-00-SP-DR-A-3375_205H - Site GA plan (March 2022)
- ★ A3(C03) - Outdoor Lighting Report, Amey Consulting (November, 2022)
- ★ AC-MSL-6121-1302 C03 -PROPOSED ROAD LIGHTING LAYOUT (November 2022)

Ecological Baseline

Third Party Ecology Company, LM Ecology (2020) were commissioned to undertake an Ecological Appraisal of the site, as extracted and summarised below:

- ★ Habitats - minor negative significant impact at local level in relation to the trees and grassland and at site level for all other habitats. Japanese knotweed is present on site.
- ★ Bats - two trees with low roosting potential. Site suitable for foraging and commuting bats.
- ★ Nesting birds - site suitable for common and widespread bird assemblage.
- ★ Hedgehog - site suitable for foraging and commuting: and
- ★ Badger - no setts on site but site suitable for foraging and commuting.

Aim(s)

The aim of this report is to provide information on the provision for habitat creation and management during the life of the proposed development.



Introduction

Development proposal

The proposals for the site are demolition of the existing buildings, vegetation clearance, and construction of 56 new dwellings with associated gardens, car parking and access.

Location

The survey area extends to approximately 1.44 hectares and is centred on National Grid Reference SJ 81071 87665 .

Enhancement Measures

Introduction

The CDN_22_0886-BIRD_AND_BAT_BOX_LOCATION-2138081 and A3(C03) lighting report documenta the following biodiversity enhancements for the site, as outlined below:

- ★ Schwegler 3S Starling Nest Box - (or equal approved);
- ★ Schwegler 1SP Nest Box - Sparrow Terrace - Grey;
- ★ Vivara Pro Seville 32mm WoodStone Nest Box - Grey (or equal approved);
- ★ Schwegler 2FN Bat Box - Special Bat Box - Black; and
- ★ Lighting strategy for bats and hedgehogs.

Bat Boxes

Artificial bat roosting features will be incorporated into the development including. The indicative locations are CDN_22_0886-BIRD_AND_BAT_BOX_LOCATION-2138081 document a total of eight bat boxes will be included within the scheme.

Bat boxes will be installed with varying orientations to provide a range of micro-climatic conditions, ranging from sunny south facing sites suitable for maternity use to north facing sites suitable for individual/torpid bats.

All boxes must be placed a minimum of 3m away from artificial light sources and at a minimum height of 4m. Locations must be appropriate to ensure connectivity to the wider landscape, nearby foraging resources, avoidance of predation and no obstructions during emergence and re-entry. Entrances should be sheltered from strong winds and only be exposed to the sun for a period of time during the day. South, south-east and south-west facing entrances are preferred, however north facing boxes will be suitable for hibernation purposes.

The proposed locations have been selected due to their proximity to the additional foraging resources and connectivity to the wider landscape. These factors should drive and speed successful uptake.

Landscaping within the development site will provide new potential bat foraging and commuting habitat for the range of species known to utilise the site.

Bird Boxes

To comply with the WCA 1981 (as amended) clearance works should be scheduled so that they do not occur during the bird breeding season (i.e. outside the period March-August inclusive). If this is not possible, a nesting bird survey is to be conducted in advance of clearance works to ensure that active birds' nests are not damaged or destroyed by the works.

Management will take place outside of the breeding bird season (generally taken as March-August inclusive) to avoid disturbance of nesting birds or destruction of nests/eggs.

15 artificial bird nesting features will be incorporated into the development as illustrated in CDN_22_0886-BIRD_AND_BAT_BOX_LOCATION-2138081.

Installation of these boxes varies between design and species. All boxes should be placed a minimum of 2m above the ground. All boxes must have clear flight lines, with no obstructions and with a recommended north to north / east orientation to avoid overheating.

Hedgehogs

Garden habitats provide suitable areas for foraging hedgehogs, to facilitate the movement of hedgehogs through the site post-construction, 'hedgehog highways' will be provided within the gardens (and where feasible boundary features). A 13cm x 13cm hole is recommended which is too small for most pets and can be delivered by raising a fence panel per garden, installing hedgehog friendly fencing, removing a brick at the bottom of a wall or cutting a hole in fencing/walls.

Lighting

To address potential lighting impacts, a sensitive lighting scheme will be designed for the residential development in accordance with the latest guidance from the Institution of Lighting Professionals (ILP) and Bat Conservation Trust (BCT) Guidance Note 08/18 Bats and artificial



Enhancement Measures

lighting in the UK (2018) and other referenced sources. Lighting along retained boundary vegetation features will not exceed a maximum of 1 lux (equivalent to a fully moonlit night) at 2m above ground level. Specific lighting strategies adopted to reduce light spill onto sensitive features and into the surrounding environment will include the following, as appropriate:

- ★ LED luminaires will be used. Metal halide and fluorescent sources will not be used.
- ★ LED luminaires will have a warm white spectrum (wherever possible) to reduce blue light components.
- ★ Luminaires will always be mounted on the horizontal, i.e. no upward tilt.
- ★ Only luminaires with flat, cut-off lanterns, an upward light ratio of 0% and good optical control will be used.
- ★ The height of lighting columns will be limited to a maximum of 8m (ideally 6m or below) and the spacing of lighting columns will be maximised to reduce spill of light into unwanted areas such as hedgerows and trees (Fure, 2006).
- ★ Light sources will not emit ultraviolet light to avoid attracting insects and thus potentially reducing numbers in adjacent areas, which bats may use for foraging.
- ★ Luminaires will feature high peak wavelengths (ideally higher than 550 nm) to avoid the component of light most disturbing to bats (Stone, 2012)
- ★ Directional luminaires, shields, baffles and/or louvres will be utilised where necessary to direct light spill away from sensitive habitats
- ★ Low-level directional downlights will be utilised if lighting along pedestrian routes in proximity to hedgerows and treelines is required.
- ★ A control management system may be used to dim or turn off groups of lights when not in use.
- ★ Lighting that is required for security or access will use a lamp of no greater than 2000 lumens (150 Watts) and be PIR sensor activated on a short timer (1 minute), to ensure that the lights are only on when required and turned off when not in use (Jones, 2000; Hundt, 2012).
- ★ Using reflective surfaces under lights will be avoided. Lights will be positioned so that they do not reflect off windows (e.g. onto bat flight lines).

The delivery of the landscape will involve planting trees, decorative shrubs and herbaceous planting, and climbers.

Landscaping

Planting should occur between November – March, preferably in November after the first frost. A dibber should be used to plant bare root trees with suitable biodegradable guards. New planting will be left to establish for a minimum of two years, then cut on an annual basis until well-established to promote a thick, scrubby growth. in regards to decorative shrubs.

Management Prescriptions

Bird and Bat boxes

Bat and bird boxes to be installed on suitable locations on the buildings to enhance opportunities for nesting birds and roosting bats. An annual inspection of bird boxes between October and February and replacement if in disrepair. If there is prolonged evidence of no use, consider relocating.

Old nesting material and any wasps nests will be removed from boxes installed over winter, outside of the bird breeding season (March-August). Fixings and fittings of bird boxes will be checked on the same visit.

The installation of bat and bird boxes must be undertaken or overseen by a suitably qualified ecologist.



Management Prescriptions

Landscape

Landscape planting will consist of native plants and species of known benefit to wildlife. Reputable suppliers will be utilised such as e.g. Barchams, Majestic and Emorsgate Seeds. All tree and planting works must be undertaken by a suitably qualified horticulturist. Biodegradable guards should be used only.

Management

Ongoing management is likely to be undertaken by the homeowners, therefore, welcome packs for residents on the boxes installed within the buildings will be provided.

Personnel

A suitably qualified ecologist (SQE) will perform an ECoW role during the construction period, where required, in order to ensure the delivery of the biodiversity strategy. This will be achieved through the provision of onsite advice and ecological method statements to deliver ecological mitigation. The ECoW will also perform an essential role in dealing with 'on the ground' and unforeseen issues and provide changes to this document and / or working practices (agreed consent from LPA may also be required).

The ECoW will ensure that contractors have the required site expertise and information to provide ecological briefing and/or information so all construction staff are fully aware of their responsibilities on site.



Management Plan

Feature	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6 & thereafter
Bat Boxes	Install bat boxes under supervision of ECOW. Ensure artificial roosts are not illuminated by site lighting.	No ongoing maintenance as bat boxes are self-maintaining				
Hedgehog highways	Install highways in fences and walls.	No ongoing maintenance				
Bird Boxes	Install bird boxes under supervision of ECOW.	Check fixings are in good order. Repeat year 1 maintenance.	Consider relocating if unused to date. Repeat year 1 maintenance.	Repeat year 1 maintenance.	Consider relocating if unused to date.	Repeat annually.
Landscape	Planting undertaken between November – March. Suitable biodegradable guards installed to bare root trees. Left to establish for a minimum of two years.	Annual inspection to identify any remedial actions required.	Repeat as per year 2.	Continue with annual inspections & undertake any remedial action as required. Any habitat management to avoid bird nesting season.	Repeat on rotation as required.	Repeat on rotation as required.



References

- ★ British Standards Institute (2013) Biodiversity – Code of Practice for Planning and Development. BS 42020:2013.
- ★ CIRIA (2015) Environmental good practice on site guide, 4th Edition. Construction Industry Research and Information Association, London.
- ★ Institution of Lighting Professionals (2018). Guidance Note 08/18: Bats and Artificial Lighting in the UK. Institution of Lighting Professionals, Warwickshire.
- ★ Ministry of Housing, Communities and Local Government (MHCLG) (2019). *National Planning Policy Framework*. [Internet]. Available from: <https://www.gov.uk/government/publications/national-planning-policy-framework>.
- ★ Manchester City Council, 2012. Manchester's Local Development Framework Core Strategy 2012 to 2027 Development Plan Document, Manchester: Manchester City Council.
- ★ Gunnell, K., Grant, G. & Williams, C., 2012. Landscape and urban design for bats and biodiversity. London: Bat Conservation Trust.

