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Ecological Conditions Report

July 2023

Land to the Rear of College Avenue Formby Merseyside L37 3RW

National Grid Reference: SD29020743

















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Document Context

A development proposal on a plot of disused land to the rear of College Avenue in Formby was granted planning consent by Sefton Council in June 2023 (Reference No.: DC/2022/01189); proposals for the site are understood to include the construction of a single detached dwelling with associated landscaping and access. Consent was granted with a number of planning conditions, three of which pertain to ecological matters, namely conditions 7, 9, and 12 which state:

- 7) "a) Given the known presence of red squirrel within this area, as a precaution a precommencement check of any trees or shrubs must be undertaken prior to their removal.
 b) A report confirming the absence of dreys must be submitted to and approved by the Local Planning Authority prior to any shrub or tree removal."
- 9) "a) Prior to the commencement of development, a working method statement setting out reasonable avoidance measures to reduce the risk of harm to small mammals and terrestrial fauna (such as hedgehogs) shall be submitted to and approved in writing by the Local Planning Authority.
 - b) The approved method statement shall the be adhered to at all times until the development is completed."
- 12) "a) The dwelling hereby approved shall not be occupied until details of bat boxes, bird boxes, bee bricks and hedgehog 'highways' to be installed to the dwelling/within the site (to include number, type, and location on an appropriately scaled plan as well as timing of installation) has been submitted to and approved by the Local Planning Authority.
 - b) The details approved under (a) above must be implemented in accordance with those details prior to the first occupation of that particular dwelling and maintained as such thereafter."

This document therefore aims to address these conditions through provision of a series of precautionary measures which, if followed meticulously throughout the development, will reduce the risk of harm to terrestrial fauna to a negligible level, and provide enhancements at the site to encourage the presence of an array of native species.

Condition 7: Pre-Commencement Checks for Red Squirrels

Red squirrels (*Sciurus vulgaris*) are a priority species in the UK listed under section 41 of the Natural Environment and Rural Communities (NERC) Act and included in Schedules 5 and 6 of the Wildlife & Countryside Act 1981 (as amended). It is an offence to intentionally kill or injure a red squirrel, or to intentionally or recklessly damage or destroy any structure or place that it/they use for shelter or protection, or to disturb a red squirrel while it occupies such a place.

The tree line at the north of the site presents suitable nesting and commuting platforms that could be used by red squirrels. Given the known presence of red squirrel within the wider area, in relation to **Condition 7a**, a pre-commencement check (a site walkover) is to take place by a suitable experienced Ecologist/Ecological Clerk of Works (ECoW) a maximum of 48-72 hours before commencement of vegetation clearance.

The survey technique will comprise the following methodology:

Activity Survey – The site will be assessed with the use of close-focusing binoculars. Records of any red squirrels and their behaviour will be taken, including any commuting lines identified.

Drey/Den Count – All trees will be inspected for signs of dreys; if present, they will be counted and their condition recorded.

Feeding Remains – The site will be inspected for evidence of squirrels feeding within the boundary, typically including pine cones which have been stripped of their scales.

Should red squirrels be found to be present, no works will commence until they have been allowed to move away from the site under their own volition.

Should a drey be identified, further surveys will likely be required to establish if the drey is in use. These further surveys will need to be undertaken prior to any site clearance, and take the form of static observation surveys carried out by a suitably qualified ecologist.

In relation to **Condition 7b**, a report will be issued following the <u>survey if an absence of dreys is confirmed</u>; this will be submitted to and approved by the Local Planning Authority prior to any shrub or tree removal.

Condition 9: Reasonable Avoidance Measures (RAMs) for Hedgehogs and Small Mammals

In relation to **Condition 9a** Reasonable Avoidance Measures, the site has already partly been cleared without the implementation of a Method statement or an Ecological Clerk of Works. However, as suitable opportunities for foraging, commuting and hibernation for European hedgehogs (*Erinaceus europaeus*) are still evident on the site in the form of large areas of dense vegetation along with areas of piled debris and logs, the remainder of the site should not be cleared without the guidance of a Method Statement.

The development proposals entail the clearance of vegetation in preparation for the subsequent redevelopment of the site. Development related activities such as remediation, piling, vegetation clearance or excavation, in areas of suitable small mammal habitat may potentially impact mammals that may inhabit the local area. As a result, safeguards must be applied to protect these species; the Method Statement below outlines sequential measures to be implemented to ensure these objectives are achieved.

Reasonable Avoidance Measures (RAMs) Method Statement

Pre-works

Timings

The attending Ecologist/ECoW will present a toolbox talk to contractors, during which they will describe the type of terrestrial fauna that might be expected at the site, and sympathetic methods of site clearance to minimise risk of harm. The contractors will be provided the opportunity to ask any questions in relation to the Method Statement; they will then sign the audit form (**Appendix I**) to signify understanding.

Juvenile and adult mammals are most vulnerable to harm during their **hibernation period which is considered to be November to February** inclusive. Site clearance / preparation works should avoid this sensitive period. If this is not possible works carried out during this sensitive period (between November – February) should take into account, the potential presence of hibernating wildlife.

Pre-commencement check – a site walkover to take place by an Ecologist/ECoW before any vegetation clearance, in order to discern whether or not areas are host to any individual mammals, and pinpoint areas in which there may be a higher chance of encountering said mammals.

During Works

Any clearance works to areas of shrubs/potential refugia as considered applicable by the ECoW (such as brick/log piles, garden equipment, plant pots, etc) or loss of existing vegetative features (dense grass and tall ruderal etc.), should only commence after a careful visual inspection (site walkover)and fingertip search has been carried out and the Ecologist has determined that no animals are present and is satisfied no animals are at risk. Works should proceed from one end of the site to the other to allow any mammals the chance to move out of the site.

Any animals found, which are not Protected Species, will be removed from harm's way and placed into suitable environs, species pending and following correct protocols/biosecurity measures.

For the full duration, no works are to extend off site in the areas adjacent to the red line boundary or within agreed buffer zones. No pallets, skips or otherwise are to be placed upon areas of dense vegetation and should instead only be placed on flat, cleared ground to avoid animals getting underneath.

The impact of works on adjacent habitats will be avoided by the clear demarcation of the works area. All work will be carried out adopting standard pollution prevention measures.

Contingency/emergency plans should be drawn up to address chemical spillage, drainage, collision, etc.

Machinery and materials to remain on bare ground and reasonable efforts must be made to avoid creating piles, or accumulated aggregates. Materials that require piling will be stored within areas of bare ground above ground level, using pallets to prevent mammals from seeking shelter below.

Any excavated materials or soils stored overnight will be searched prior to being used as infill.

Where excavations/trenches are excavated - it should be ensured that they are not left open overnight to avoid mammals falling into them and becoming trapped. If trenches cannot be filled in after the working day for whatever reason, an escape mechanism such as wooden planks of 5cm wide as a minimum should be placed in them at a 45-degree diagonal angle, to serve as an escape mechanism to small animals including mammals.

Any exposed pipes / pipe systems should be capped when not in direct use to prevent any mammals from accessing the pipework and potentially coming to harm.

Excavations should be checked in the morning on a daily basis for the presence of any animals that may have fallen in during the night.

All site operatives will maintain a watching brief throughout the work schedule and report any issues, anomalies or discrepancies to the ecologist or ECoW as appointed.

If a mammal is found in the absence of supervision, work must stop immediately, and any mammals should be moved to a safe and secure area out of harms way. If there is any queries regarding the species of animal located, then the contractors should contact an ecologist for further advice.

Any mammals (hedgehog etc.) found should be carefully caught by the Ecologist / ECoW, placed (where capture is possible and humane) in a ventilated box using dampened gloved hands and released into suitable nearby vegetation that will be unaffected by the proposed works.

Plastic netting, wire coils or similar hazardous features should not be left on the ground, to avoid entanglement. Aggregates/constructional materials should be stored on pallets as opposed to the storing on the ground.

Guide to timings:

Operation	Months										Notes					
Operation	J	F	М	Α	М	J	J	Α	S	0	N	D	Notes			
Pre-works																
Buffer zone demarcation & signage		Pre-habitat manipulation & site walkover							To avoid encroaching in sensitive areas							
Site Walkover by Ecologist			Υ	Υ	Y	Υ	Υ	Υ	Υ	Υ			Prior to habitat manipulation			
		•		•				•			ommer nefran		= Y			

Proposed Biodiversity Enhancement Plan

A Biodiversity Enhancement Plan has been provided (see **Figure 1**) in relation to Condition 12a, with recommendations in relation to bats and breeding birds and hedgehogs, fulfilling the aforementioned condition, **Table 1** provides a key to accompany the enhancement plan.

It is additionally recommended that these enhancement measures are undertaken in tandem with native landscaping where feasible; native botanical species will improve the value of a site for a wide variety of native wildlife through provision of food and shelter, whereas non-native species are frequently not used or are of lower value to our native species.

The plan comprises one Kent type twin crevice bat box, one open fronted nest box, one great tit/tree sparrow nest box, one bee brick, one hedgehog hotel and a single hedgehog highway (full specifications for each of these items is expanded upon later in this report).

These provisions will suitably enhance the development site for bats, breeding birds and hedgehogs.

Symbol

Legend

Kent type twin crevice bat boxes (Total: 1 box, tree-mounted)

Open fronted nest box (Total: 1 box, tree-mounted)

Great tit/tree sparrow nest box (Total: 1 box, tree-mounted)

Hedgehog hotel (Total: 1 hotel)

Hedgehog highway (Total: 1 openings)

Bee brick (Total: 1 brick on dwelling)

Table 1 - Biodiversity Enhancement Plan Key

<u>Installation</u>

To be carried out during and after the construction phase; following completion a site visit will be carried out by Tyrer Ecological Consultants Ltd to confirm the correct installation has taken place in accordance with the terms of the planning condition.



Figure 1 – Biodiversity Enhancement Plan via proposed site plan (©Keith Davidson Partnership)

Mitigation Measures for Bats, Birds and Hedgehogs

Bats

Enhancement for bats typically comprises the planting of woodlands, dark corridors and linear habitat such as hedgerows and treelines supplemented by the provision of bat boxes on trees and structures such as buildings, bridges and walls. Given the retention of the existing tree line at the north of the site, it is recommended that a bat box is incorporated here within the development as per the Biodiversity Enhancement Plan. The box should be situated on the southerly aspect of the tree to maximise sunlight exposure, at a height of at least 4 metres.

Suitable bat boxes are given below (list non-extensive and other models are available).

Bat boxes Primarily for use by roosting bats but may also be used by small birds as a safe roost site. Two curved internal voids narrowing down to tight crevices at the top. Suitable for a range of bat species, mating roosts and spring and autumn roosts where the Large Twin Crevice thermal mass is a benefit. Top loop for more comfortable carrying and quick initial attachment to the tree and two through the box nail holes for secure attachment of this heavy box. Two parallel crevices for roosting bats with internal connection to move between the two. Light internal finish for helping to spot and droppings bats, marks. Top loop for quick and easy initial attachment to the tree, Kent type twin plus two 'through the box' nail crevice points for maximum security. Primarily for use by roosting bats including as an autumn mating particularly pipistrelles. Also likely be used by small birds as a safe roost site. 16mm hole for endoscope inspection in the base facilitating inspection, potentially avoiding Bat chamber working at height with the right

equipment. Light internal finish facilitates detection of droppings or rub marks. Top loop makes initial attachment to the tree easier – with two further attachment points for 6"

nails for security.

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Timing	Bat boxes can be installed at any time of year.				
Other Notes Note that once bats have inhabited a roost, they may only be disturbed licensed bat workers.					
	https://www.barkboxes.co.uk/product/large-twin-crevice/				
References	https://www.barkboxes.co.uk/product/kent-type-twin-crevice/				
	https://www.barkboxes.co.uk/product/bat-chamber/				

Birds

Enhancement for birds typically comprises the retention and maintenance of nesting habitats; birds will nest in a wide variety of habitats from the various levels of trees to scrub, buildings, or even bare earth in the ground. Optimal breeding bird habitat will offer a range of nesting and feeding opportunities and be subject to low disturbance. As with the bat boxes, it is recommended that several bird boxes are integrated within the retained tree line as per the Enhancement Plan, to mitigate for any possible disturbance to nesting birds and enhance the site for this group. These boxes should be mounted away from the southern aspect (ideally north-facing) to minimise sunlight exposure and should be at a height of approximately 3.0 metres ensuring no foliage covers the entrance to allow a clear flight path.

Suitable breeding bird boxes are given below (list non-extensive and other models are available).

Breeding bird boxes					
Great tit / tree sparrow nest box		Nest box and roost site with 28mm entrance suitable for great tit or tree sparrow. Likely to be used by roosting birds, one of these was adopted by a blue tit whilst still in production, and with potential for use by roosting bats.			
Branch stub		Replicating a rotting branch stub with void. More likely to be used by nesting and roosting birds than roosting bats.			

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Open fronted nest box		Eco Robin (Open-Fronted) Nest Box: The robin box is an open-fronted nest box. As well as providing a suitable nest box for robins, it's also ideal for other birds that use open-fronted boxes such as wrens, pied wagtails and spotted flycatchers. Fixing to the wall or tree is easy with three concealed mounting holes in the back of the box.			
Timing	Bird boxes will be erected outside of the breeding bird season, to eliminate the possibility of disturbing birds currently utilising the trees for nesting.				
Other Notes	Note that bird boxes should not be opened between the months of March to September to avoid disturbing nesting birds.				
References	https://www.barkboxes.co.uk/product/great-tit-tree-sparrow/ https://www.barkboxes.co.uk/product/branch-stub/ https://www.barkboxes.co.uk/product/open-fronted-nest-box/				

<u>Hedgehogs</u>

The number of hedgehogs in the UK has plummeted over recent years; while there were estimated to be around 1.5 million in 1995 it is believed hedgehogs now number two thirds less at 500,000. Hedgehog homes could be provided as part of enhancement at Mattersey Hall, to mitigate for any potential disturbance or damage to their foraging and/or commuting routes.

Hedgehogs need homes just like humans, so making one for them is a great way to encourage them. Some tips include:

Find a location - It should be sited in a quiet position out of prevailing wind in an area with some nearby cover. The front entrance should be out of the wind.

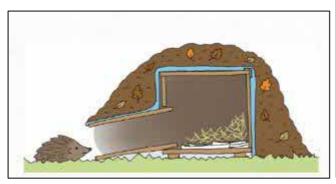
Cover the outside - Cover the outside in a pile of woody garden cuttings and leaves. You can also cover it with soil, as long as the entrance hole and ventilation pipe is clear.

Aftercare - It's worth clearing out the hedgehog home, every year or two. You can do this in April, after their hibernation but before hedgehogs start producing hoglets. However, the ideal time is in October before they go into hibernation, and after most of the litter have been weaned.

Monitoring your hedgehog home - Remember that you won't see any activity between October and March/April when they're hibernating.

If you'd like to find out if your box is being used, put something in front of the entrance that won't blow away but can be easily moved by a hedgehog, like a scrunched-up piece of newspaper. If a hedgehog is at home, you'll find it will have been moved by the next morning.

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For Hedgehog Homes - Hedgehog House, with weatherproof lid: Riverside Woodcraft

Another suitable mitigation strategy for hedgehog is the incorporation of several hedgehog highways. Research suggests that it is becoming harder for hedgehogs to move freely due to an increase in the number of solid walls and fences being erected around gardens. This reduces the available foraging area and so restricts the amount of food that they can eat as well as reducing the possibility of meeting a mate. Creating a hole in a garden wall or fence will allow local hedgehogs to pass through from garden to garden safely.

A hole measuring 13cm by 13cm is the right size for a hedgehog to pass through but too small for most pets. Once you have made your hole in the fence or wall, you can fix the Eco Hedgehog Hole Plate to the fence, ensuring that the hole does not get blocked or stretched. The plate has six screw holes, three along each side, which can be used to fix the plate to your fence or wall. Additional holes can be made in the plastic if required.

The Eco Hedgehog Hole Plate is made from 100% recycled plastic, which is mostly derived from plastic waste from farms across the UK. The plastic hedgehog hole is UV-stabilised so will not rot or degrade over time.



Specification

* Material: Low density Polethylene board (100% recycled plastic)

* Dimensions: Height 26cm x width 23cm

* Entrance Hole: 13cm x 13cm * Country of Manufacture: England

Bee bricks

The Bee Brick can be used in place of a standard brick or block in construction to create habitat for solitary bees. Alternatively, it can be used as a standalone bee house in your garden or wild patch. It will provide much needed nesting space for solitary bee species such as red mason bees and leafcutter bees, both of which are non-aggressive.

Each Bee Brick contains cavities in which solitary bees can lay their eggs before sealing the entrance with mud and chewed-up vegetation. The offspring will emerge the following spring and the cycle will begin again. Each cavity goes part way into the brick, which is solid at the back. Bee Bricks should be placed in a warm sunny spot on a south-facing wall at a minimum height of 1m, with no vegetation obstructing the holes. It is highly recommended that bee-friendly plants should be located nearby so that the bees using the bricks have food, otherwise it is unlikely that the brick will be used.



Specification

* Material: Concrete * Origin: Cornwall, UK

* Dimensions: W 215mm x D 105mm x H 65mm

* Weight: 2.9kg

* Colours: White grey, yellow, dark grey and red

For bee bricks: https://www.nhbs.com/bee-brick

Contact details

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Preliminary Ecological Appraisal ~ Ecological Impact Assessment ~ Protected Species Surveys ~ EPS Mitigation Licences ~ Biodiversity Net Gain ~ Habitats Regulations Assessment ~ BREEAM ~ Confined Spaces Surveys ~ Tree Climbing ~ Arboricultural Impact Assessment ~ Ecological Clerk of Works ~ Management Plans ~ Planning Conditions ~ CEMP/LEMP

Appendix I: Toolbox Talk Audit Form

Toolbox Talk Audit Form Tyrer Ecological Consultants Ltd



Site:		Ecologist(s):			
I can confirm I have attended the formal Toolbox talk held by the named Ecological Consultant. I confirm I am aware of the legislation in relation to herpetofauna and mammal species that may be in the locale. I confirm I will endeavour, to the best of my capability, to follow the measures outlined in the RAMS to protect all animals from harm, and know what to do if I encounter protected species.					
Name:		Signed:			
Company:		Date			
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