



WOLD ECOLOGY LTD

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East Common Lane, Scunthorpe, North Lincolnshire

Construction Ecological Management Plan and Ecological Enhancement Management Plan.

May 2023

	Staff Member	Position
Report prepared by :	Daniel Lombard B Sc., MCIEEM	Ecologist.
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DOCUMENT CHECKING

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1	10/05/2023	Draft for internal review.	Daniel Lombard B Sc MCIEEM
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TABLE OF CONTENTS

1.0	EXECUTIVE SUMMARY.	2
2.0	GENERAL DESCRIPTION AND BACKGROUND.	8
3.0	ECOLOGICAL CONSTRUCTION MANGEMENT PLAN.	9
4.0	ECOLOGICAL ENHANCEMENT TARGETS.	12
5.0	HABITAT MANAGEMENT PRESCRIPTIONS.	13
6.0	SPECIES MANAGEMENT PRESCRIPTIONS.	15

1.0 EXECUTIVE SUMMARY.

- 1.1 In May 2023, Wold Ecology Ltd was commissioned by GS Kelsey to write a Construction Ecological Management Plan (CEMP) and an Ecological Enhancement Management Plan (EEMP) and for land at East Common Lane, (national grid reference SE 90064 09708) in Scunthorpe, North Lincolnshire.
- 1.2 The planning permission granted by East Riding of Yorkshire Council (Ref: **PA/2022/866**) is for ‘the construction of 28 Affordable Bungalows on the former Site of Brumby Resource Centre, including services and infrastructure’.
- 1.3 A CEMP and EEMP is a requirement of conditions relating to the ecology of the site which states:
25. Works shall be carried out strictly in accordance with the species protection measures for nesting birds and bats set out in section 8 of the submitted Ecological Appraisal Report dated May 2022.
26. Within 3 months of the commencement of development, the applicant or their successor in title shall submit a biodiversity management plan to the local planning authority for approval in writing.
The plan shall include:
- a) Details of at least 5 bat roosting features to be installed;
 - b) Details of nesting sites to be installed to support swifts and house sparrows on at least 8 dwellings combined.;
 - c) Restrictions on lighting to avoid impacts on bat roosts, bat foraging areas bird nesting sites and sensitive habitats;
 - d) Provision for hedgehogs to pass through any fencing installed between gardens and between areas of grassland;
 - e) Prescriptions for the retention, planting and aftercare of trees, shrubs and flowering plants of high biodiversity value;
 - f) Proposed timings for the above works in relation to the completion of the buildings.
27. The Biodiversity Management Plan shall be carried out in accordance with the approved details and timings, and the approved features shall be retained thereafter, unless otherwise approved in writing by the local planning authority. Prior to the occupation of the 25th dwelling, the applicant or their successor in title shall submit a report to the local planning authority, providing evidence of compliance with the Biodiversity Management Plan.
- 1.4 This document provides information, which is relevant to discharge conditions 25, 26 and 27 attached to the planning consent granted for the site.
- 1.5 As part of the CEMP, all personnel working at the construction site shall be made aware of this documents and its contents. A copy of this document will remain on site during the construction period.
- 1.6 Following field surveys and a desktop study conducted by Wold Ecology, the following habitats and species have been targeted for enhancement and protection within this document:
- Habitats
- Trees
 - Hedgerows

Species

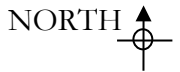
- Birds
- Bats
- Hedgehog
- Bees

- 1.7 The responsibility for carrying out the functions of this CEMP and EEMP will vary throughout the duration of the management period as follows:
- Pre-construction/Enabling Works Phase: All management and maintenance works of all features and species of ecological importance are the responsibility of the Principal Contractor appointed by the Developer and are to be completed by the Principal Contractor for sign-off by the Developer prior to the start of construction.
 - Construction Works Phase: All management and maintenance works of all features and species of ecological importance are the responsibility of the Developer, and are to be continued through to practical completion; and
 - Long-term Management Post-adoption: The responsibility for the management and maintenance works of all features and species of ecological importance postadoption will be the responsibility of the individual property owners, with exception to those areas of public open space that are to be the responsibility of the Private Management Company or similar appointed contractor.
- 1.8 The management scheme detailed within this CEMP and EEMP covers the provision, management, inspection, maintenance, repair, and replacement as necessary, taking into account factors including ecological, landscape, social, wildlife and amenity use for the land.

Timetable.																
Method.	Construction Period												Post development			
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year 1	Year 2	Year 3	
Toolbox talk.	Immediately prior to the construction phase commencing.															
Tree felling/vegetation clearance.	Optimum	Sub optimum	Unsuitable*					Sub optimum	Optimum	Optimum	Optimum	Optimum	Optimum	Optimum		
Tree/hedge planting.	Optimum	Optimum	Optimum	Sub optimum	Sub optimum	Sub optimum	Sub optimum	Sub optimum	Sub optimum	Sub optimum	Sub optimum	Sub optimum	Optimum			
Provision of bat boxes.	No timing constraints.															
Provision of bird boxes	No timing constraints.															
Provision of hedgehog houses/holes	No timing constraints.															
Replacement trees.	Optimum	Optimum	Optimum	Sub optimum	Sub optimum	Sub optimum	Sub optimum	Sub optimum	Sub optimum	Sub optimum	Sub optimum	Sub optimum	Optimum	Optimum	Optimum	
Watering trees and weed free zone.	Sub optimum	Sub optimum	Sub optimum	Optimum	Optimum	Optimum	Optimum	Optimum	Optimum	Optimum	Optimum	Optimum	Optimum	Optimum	Optimum	
On-site inspection.	Optimum	Optimum	Optimum	Optimum	Optimum	Optimum	Optimum	Optimum	Optimum	Optimum	Optimum	Optimum	Optimum	Optimum	Optimum	

Optimum Sub optimum Unsuitable* |

* Denotes timing constraints that do not comply with industry best practice or may result in an offence being committed under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 e.g. disturbance to nesting birds.



Not to Scale

Drawing title:
Lighting Plan

	Illuminated area with no light overspill outside of this boundary
--	--

No light overspill
into this area

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Not to Scale
 Drawing title:
**Habitat Mitigation
 Plan**

KEY

-  Existing trees, hedges and vegetation to be retained
-  Existing trees, hedges and vegetation to be removed
-  Proposed heavy standard (12-14cm girth) tree
-  Proposed selected standard (10-12cm girth) tree
-  Proposed Beech hedging
-  Proposed evergreen flowering hedge (Escalonia)
-  Proposed grass seed for wooded garden areas using shade tolerant grass seed
-  Proposed ornamental shrub planting
-  Proposed turf with 300mm mowing strip adjacent to walls and fences
-  Proposed tree protection fencing (detailed by others)
-  Proposed brick wall, 215mm thick brick walls with piers as required with tile creasing and brick coping (detailed by others)
-  Proposed 1800mm high hit and miss timber fencing with concrete posts (detailed by others)
-  Proposed 1500mm high hit and miss timber fence, 300mm high trellis on top with concrete posts (detailed by others)
-  Proposed 900mm high galvanised metal railing, colour: black (detailed by others)
-  Proposed PCC paving (detailed by others)

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2.0 GENERAL DESCRIPTION AND BACKGROUND.

- 2.1 Location : East Common Lane
County : North Lincolnshire.
Parish and District : Scunthorpe
OS Grid Reference : SE 90064 09708
- 2.2 The habitats within the Application Site comprise scrub, ephemeral vegetation and bare ground interspersed with several scattered trees located in an urban environment.
- 2.3 The Application Site is located in central Scunthorpe, in an urban location. The Application Site is approximately 0.9ha and is immediately surrounded by commercial units, retail outlets, businesses and housing including well-lit and heavily disturbed infrastructure.
- 2.4 Woodland cover in the locality is limited and occurs as avenue trees, trees in parks and occasional colonisation of trees on brown fields sites and roadside verges. Habitat connectivity from the Application Site is poor, with the Application Site not connected to any ecologically valuable habitat; the urban nature of the Application Site also restricts terrestrial dispersal opportunities.
- 2.5 A summary of the surrounding habitat is (radius of < 2km from the site):
- Buildings – farm buildings and residential properties
 - Hedgerow
 - Mature trees and woodland
 - Mature private gardens
 - Ponds and watercourses
 - Bottesford Beck
 - Grazed pasture
- 2.6 A Phase 1 Habitat Survey and site visits were undertaken by Wold Ecology Ltd during 2022. During the site visit, the whole of the Application Site and accessible neighbouring land was examined in detail.

3.0 ECOLOGICAL CONSTRUCTION MANGEMENT PLAN.

3.1 The CEMP recommends the following measures which will be adopted to ensure potential adverse impacts to wildlife are avoided.

3.2 Birds

3.2.1 The applicant is reminded that, under the Wildlife and Countryside Act 1981, as amended (section 1), it is an offence to remove, damage or destroy the nest of any wild bird while that nest is in use or being built. Planning consent for a development does not provide a defence against prosecution under this act.

3.2.2 No removal of trees, shrubs and tall/dense vegetation, shall take place between mid-February and mid-September inclusive, unless a competent ecologist has undertaken a careful, detailed check of aforementioned for active birds' nests immediately before the vegetation is cleared and provided written confirmation that no birds will be harmed and/or that there are appropriate measures in place to protect nesting bird interest on site. Any such written confirmation will be submitted to the local planning authority.

3.2.3 Thick and overgrown hedgerows are often difficult to inspect fully and removal of a hedges/scrub during the spring/summer period is not recommend.

3.2.4 If nesting birds are found during the watching brief, works that will impact upon the nest will need to stop until the young have fledged.

3.3 Mammals (deer, badgers, hedgehogs etc.)

3.3.1 During the construction phase of the development, it is necessary to undertake a number of additional measures to safeguard any mammals which may become present within the development site. The following measures are recommended in respect to the Application Site:

- Site personnel are to be made aware of the potential presence of mammals using the Application Site, prior to site works finishing on an evening;
- Any dangers within the construction site to mammals are to be identified and measures undertaken to minimise any such risk, in relation to the Application Site, this includes the following:
 - Any trenches or deep pits within the development site that are to be left open overnight will be provided with a means of escape should a mammal enter or be covered up. A means of escape could include a roughened plank of wood or similar, placed in the trench as a ramp to the surface. This is particularly important if the trench/pit is liable to fill with water.
 - Any trenches/pits will be inspected each morning to ensure no mammals have become trapped overnight. Should a mammal become trapped in a trench/pit, Wold Ecology will be contacted immediately for further advice.
 - The storage of any chemicals on site will be contained in such a way that they cannot be accessed or knocked over by any commuting mammals.
 - Open pipework greater than 75mm outside diameter will be blanked off at the end of each working day.
 - Care must be taken whilst carrying out vegetation clearance, or strimming. A thorough check of the vegetation prior to removal will help ensure that no hedgehogs are injured or killed during development works. Sleeping

- hedgehogs frequently suffer severe injuries from strimmers.
- Avoid setting fire to piles of vegetation unless they have been turned, checked, or moved immediately prior to burning. Hedgehogs often get killed or injured in fires during vegetation removal and during early November.

3.4 Bats

3.4.1 This statement will be copied to contractors and all those involved with tree felling, whose work may affect bats and their roosts on site. Even though bats have not been found, tree felling should occur as though bats could be present.

3.4.2 Locating bats in trees

3.4.2.1 Bats are by nature highly secretive, mobile mammals; therefore, bats and their roosts can be very difficult to detect. A pipistrelle bat is capable of roosting in a crack measuring 20mm. In order to reduce any unnecessary disturbance, injury, or death of any late discoveries of individual bats roosting in the trees, the following procedures will be implemented. Common roost locations must be checked. These include:

- Lifted bark with gaps behind
- Knot holes

3.4.2.2 The optimum time for tree pruning and felling is mid-September to late October. This ensures that disturbance to potential roost sites occur at less vulnerable times of year i.e. after breeding and after hibernation. However, felling post February can conflict with other statutory protected species i.e. nesting birds.

3.4.3 Tree felling procedure

- Keep tree work to a minimum retaining all potential roosts where possible. A precautionary inspection of the tree(s) by the tree work contractor looking for signs of bats should be carried out before starting work.
- The trees will be felled as carefully as possible to reduce the impact shock on the trees being felled. Operatives will inspect any cavities or hollow sections prior to snedding branches and limb cutting.
- Cavities should not be directly cut through.
- Where possible, avoid cross cutting in proximity to cavities or hollows. Limbs with internal fissures should be pruned carefully to maintain integrity of features as potential roost sites.
- Any sections felled containing cavities should be lowered carefully and left on the ground (minimum of 48 hours) with the openings clear, allowing anything inside an opportunity to escape.
- Split limbs that are under tension may need to be wedged open to prevent their closure when pressure is released, potentially trapping bats.

3.4.4 In the highly unlikely event that roosting bats are discovered:

- Immediately stop the work that you are undertaking.
- Do not expose the bat or cause it to fly out of the roost on its own accord.
- Contact Wold Ecology on 01377 200242 or 07795 071504 for advice.
- Advise colleagues in the vicinity of your work why you have stopped and advise them to be aware of the potential for bats being disturbed, injured or killed.

- Immediately report the matter to your site manager/line manager who will inform relevant personnel.
- Grounded bats must be carefully placed in the roost location or a lidded, ventilated box with a piece of clean cloth and a small shallow container with some water. The box must be kept in a safe and quiet location.
- Any underweight or injured bats must be taken into temporary care by an experienced bat carer and looked after until such time that the bat can be transferred to a suitable replacement roost at the same site, or weather conditions are suitable for release at the same site.

3.4.5 Bats will only be handled by a licensed bat ecologist, wearing gloves, who has received a rabies vaccination. The bat will be placed either into a holding box, with water provided, and re-released close to the farm at dusk, or placed into a bat box located on site.

3.4.6 Injured bats will be taken into care (as directed by the Bat Workers Manual, section 7.3, pages 64 – 66: 3rd edition 2004) and fed and cared for until such time when conditions are suitable (night time temperature are $>6^{\circ}\text{C}$) for them to be released at dusk in the mitigation area.

3.5 Trees

3.5.1 An Arboricultural Method Statement has been produced separately by a qualified Arboricultural Consultant.

4.0 ECOLOGICAL ENHANCEMENT TARGETS.

4.1 Conservation of features

4.1.1 Following field surveys and a desktop study conducted by Wold Ecology during 2022, the following habitats and species have been targeted for enhancement and protection within this management plan document.

4.1.2 Habitats

- Trees
- Hedgerows

4.1.3 Species

- Birds
- Bats
- Hedgehog

5.0 HABITAT MANAGEMENT PRESCRIPTIONS.

5.1 Trees

5.1.1 The tree planting schedule has been designed by fda landscapes and referenced in the R/2601/2B. Native and local provenance trees and shrubs that are typical for the area will be planted.

5.1.2 Planting operations shall be carried out in general accordance with the requirements of Sections 7, 8 and 9 of B.S. 4428: 1989 'Recommendations for General Landscape Operations (Excluding Hard Surfaces)'.

5.1.3 Planting Season: Unless otherwise specified, all transplanting shall be carried out between the end of October and the end of March. Container grown trees may be transplanted at times other than these at the discretion of the Project Manager.

5.1.4 All tree stock must comply in all respects with the current edition of B.S. 3936. Trees shall be well grown nursery stock free from disease, true to type and of a size scheduled in accordance with the approved method of measurement.

5.1.5 All trees will be suitably supported by stakes and tree ties. Trees to be protected for 5 years with a 75cm biodegradable or compostable tree tube and stake.

5.1.6 Maintenance of tree planting

5.1.6.1 The contractor will be responsible for programme of maintenance of new tree planting. The maintenance work is to ensure that all newly planted trees that fail to make active growth are replaced during the first available planting season for the first 12 months.

5.1.6.2 The contractor shall ensure that a weed free area of 1m is maintained around all newly planted trees for the first 24 months following planting.

5.1.6.3 During the first 24 months from the date of planting, the contractor will be responsible for adequate watering during periods of dry weather all newly planted, trees, shrubs, turf, and grass seeded areas so as to ensure their survival. All deaths of trees will be replaced at the contractor's expense.

5.2 Hedgerows and shrubs

5.2.1 The hedge planting schedule has been designed by fda landscapes and referenced in the Site Drawing R/2601/3A.

5.2.2 Planting will be carried out between October and March. Six hedge plants will be planted per metre in two staggered rows.

5.2.3 Areas of hedgerow and shrub planting will be sprayed with an approved herbicide at least 4 weeks prior to planting to produce an overall kill of ground vegetation. The ground will then be cultivated to a depth of 150mm before planting work commences. This work will ensure that any ground compaction will be broken up and weed competition removed. Topsoil will be provided to ensure a minimum of 500mm of topsoil for all planting areas.

- 5.2.4 All hedgerow plants will be protected with 90cm biodegradable or compostable spirals and canes.
- 5.2.5 **Maintenance of hedge planting**
- 5.2.5.1 The contractor shall ensure that a weed free area of 1m is maintained around all newly planted hedges and shrubs for the first 3 years following planting.
- 5.2.5.2 During the first 3 years from the date of planting, the contractor will be responsible for adequate watering during periods of dry weather for all newly planted hedging and shrubs so as to ensure their survival. All deaths of hedge plants and shrubs will be replaced at the contractor's expense.
- 5.2.5.3 The hedgerows should be trimmed every two years at the end of winter (January), avoiding periods of hard frost. Hedgerows less than 2m in height will be lightly trimmed along the sides annually until a desired height of at least 2.5m is reached. Trimming hedgerows on alternate sides every year should be encouraged where feasible.
- 5.2.5.4 A vegetated strip of between 1 and 3m should be encouraged around the bases of all of the hedgerows on site; this will improve the hedgerows wildlife value and offer the hedge more protection.

6.0 SPECIES MANAGEMENT PRESCRIPTIONS.

6.1 Birds

6.1.1 It is concluded that the Application Site is suitable habitat for hedgerow, urban and agricultural bird species with various designations.

6.1.2 In order to increase nesting opportunities for birds, 8 Schwegler bird boxes will be erected throughout the site. These boxes will target species of conservation concern, namely house sparrow and swift. A summary of recommended bird boxes are listed below:

Name	Description	Number
Schwegler swift box #16S	Building box for eaves	4
Schwegler sparrow terrace #1SP	Brick building box	4

6.1.3 Boxes will be placed so that the entrance does not face the prevailing wind, rain, and strong sunlight. The sector from north to south east should be used, with south facing boxes positioned in more shaded areas.

Plate 1 – Schwegler 16S

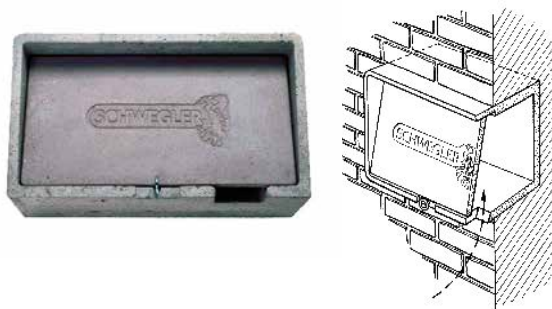
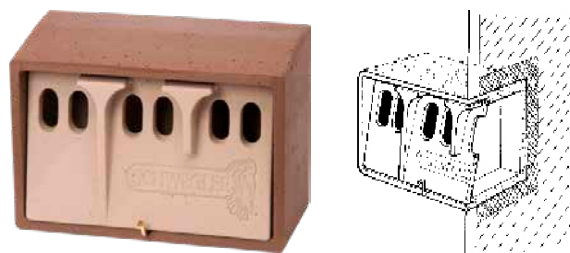


Plate 2 – Schwegler sparrow terrace



6.2 Bats

6.2.1 Lighting

6.2.1.1 Lighting has a detrimental effect on bat activity; many bats will actually avoid areas that are well lit. Lighting can cause habitat fragmentation by preventing bats from commuting between roosts and foraging grounds (A.J Mitchell-Jones 2004).

6.2.1.2 At this site, new lighting design will ensure lights will **not** be mounted where they will shine directly on to bat boxes or adjacent trees that will be used by foraging and

commuting bats. A light intrusion lux level besides trees along the eastern boundary and bat boxes will be 1 lux or below.

6.2.2 Bat boxes

- 6.2.2.1 Five Schwegler 1FR bat tubes will be sited on the gables of new buildings. Schwegler Bat Boxes are recommended and well tested boxes. Bat boxes should be erected on south, east or west elevations; close to the eaves/ridge apex or 3-5 metres above ground level with free flight paths.

Plate 3 - Schwegler 1FR Boxes



- 6.2.2.2 These boxes are self-cleaning as they are designed so that the droppings fall out of the entrance. This reduces the possibility of smell during the summer months. For more information on designs and installation of bat boxes see: www.schwegler-natur.de and www.bct.org.uk.

- 6.2.3 Timber treatment must be carried out using Permethryn type chemicals on the Natural England list of approved safe chemicals. New pre-treated timbers i.e. tanalised timber will be allowed to dry thoroughly before use, if applicable. New timbers will be thoroughly brushed with a stiff yard brush to remove any crystalline residues before use.

A list of Natural England approved paints and timber treatments are available at http://www.naturalengland.org.uk/Images/Bat%20roost%20timber%20treatment_tcm6-10167.pdf

6.3 Hedgehogs

- 6.3.1 Hedgehogs can roam around 2km a night and hedgehog hog holes will be incorporated into each of the garden dividing fences and perimeter fences. These small holes will be placed at ground level and will measure 130mm in diameter and enable hedgehogs to roam freely through gardens and communal areas, so they can forage for food and find suitable nesting areas.

- 6.3.2 Hedgehog holes will be created in all partition fences, allowing free movement between gardens. Perimeter boundary fencing will include a hedgehog hole every 30m.

Plate 4 – example of a hedgehog hole.

