THIS BIODIVERSITY ENHANCEMENT SCHEME WAS UPDATED ON 27/03/22 TO INCORPORATE A REVISED PROPOSED LAYOUT. THE REVISION IS A MINOR AMENDMENT TO AN ACCESS ROAD IN THE EAST OF THE SITE AND DOES NOT SUBSTANTIVELY AFFECT THE FINDINGS OF THIS SITE SURVEY. A SHORT LENGTH OF RECOMMENDED HEDGEROW PLANTING HAS BEEN RE SITED TO ACCOMMODATE THE NEW POSITION OF ONE OF THE CAR TURNING/PARKING AREAS; BEYOND THIS THE ENHANCEMENT SCHEME DETAILED IN THIS REPORT REMAINS THE SAME.

# Biodiversity Enhancement Scheme

## Stonehouse Farm, Wainscott ME3 8EN

Client: St Sepulchre (Finsbury) United Charities
Date of Completion: 17.08.2021 AMENDED 27/03/22
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Principal Author: Sarah King
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| | Name | Company | Position | Telephone Number |
|---|---|---|---|---|
| Author: | Sarah King | ECOassistance | Ecological Consultant | 01227 840454 |
| Checked by: | Edward Clark | ECOassistance | Ecological Consultant | 01227 840454 |

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# INTRODUCTION

This report has been prepared to support a planning application to develop the above site towards a residential end use including the conversion of 5 vacant farm buildings into residential properties with the inclusion of new access driveways, parking and gardens, within a plot approximately 7800 squm (0.78 ha) in size, centered on NGR TQ732713.

The report aims to inform the preparation of landscape plans and outline biodiversity enhancement measures to mitigate any potential losses with the aim of achieving a net gain.

The report has been compiled by Sarah King BSC ACIEEM CSJK, who is a suitably trained and experienced ecologist and botanist who has completed the CIEEM training associated with Net Gain Assessments and has 20 years industry experience.

The site visit was undertaken on Tuesday 10th August, and lasted approximately 1 hour.

The survey largely followed the principles set out within the CIRIA best practice guidance produced by CIEEM & IEMA 'Biodiversity net gain – Good Practice Principles for Development' which supports net gain calculations as they currently sit.

The survey involved carrying out a walkover survey where a visual inspection of the areas included within the red line boundary shown in Figure 1 and the areas immediately surrounding were conducted. A wider exploration of the area was undertaken by vehicle in order to gain understanding of the importance of these habitats within this setting.

The following original documents have also been consulted in order to gain an understanding of the use of the site by protected species so that biodiversity gain can be appropriated towards these species.

Preliminary Ecological Appraisal. CLM. February 2020.

Bat Scoping Survey. The Ecology Co-op. March 2021.

Bat Emergence/Re-entry Surveys. Cuculus Ecology. August 2020.

This report seeks to address and discharge the concerns raised within the relating statement made by KCC Ecological Advise Service on 2nd June 2021 where it is stated :

> Biodiversity Net-Gain
>
> Under section 40 of the NERC Act (2006), and paragraph 175 of the NPPF (2019), biodiversity must be maintained and enhanced through the planning system. Additionally, in alignment with paragraph 175 of the NPPF 2019, the implementation of enhancements for biodiversity should be encouraged.
>
> With the amount of trees, scrub/hedgerow and grassland to be lost, we highlight concern as to whether biodiversity net-gain can be achieved. We highlighted previously that this should be addressed but note that the ecology report makes no reference to this.
>
> We strongly advise that further information is provided to demonstrate that biodiversity net-gain be achieved.

# LEGISLATION AND BACKGROUND

The National Planning Policy Framework (NPPF3) (Ministry of Housing, Communities and Local Government, 2019) sets out requirements for the delivery of biodiversity net gain, and this is supported within Planning Policy Guidance (PPG) (updated July 2019).

The Natural Environment PPG addresses principles across a broad spectrum of topics targeting biodiversity conservation, from individual site and species protection through to the supporting of ecosystem services, and the use of local ecological networks to support the national Nature Recovery Network. In particular the PPG promotes the delivery of measurable Biodiversity Net Gain through the creation and enhancement of habitats alongside development.

The Government has confirmed its intention to mandate Biodiversity Net Gain at a minimum of 10%. It is envisaged that this will be enacted into UK law through adoption of the Environment Bill. Whilst the Bill is still to receive Royal Assent, and once this has been achieved a two-year implementation period is expected, many Local Planning Authorities have started to include biodiversity net gain requirements into Local Plan policy.

EXEMPTIONS FROM NET GAIN REQUIREMENT

DEFRA's initial consultation document outlined their aim of creating a more 'level playing field' for developers, through a standardised requirement regarding biodiversity.

The government response tempers this ambition somewhat introducing various exemptions for specific development types, including : sites classed as 'minor development' (fewer than 10 residential units or an area of less than 0.5 ha) combined with a distinct lack of priority habitats present, it is anticipated that for such developments a simplified approach to net gain will be considered, with a simplified metric and potentially less than 10% gain required however this information is not currently available.

Notwithstanding, the overall aim of this report is to:

- Provide baseline data
- Ensure that baseline habitat conditions are classified in a robust and consistent manner, and that classification is based on the best data available data at the time of assessment.
- Propose a Biodiversity Enhancement Plan with the aim of maximising biodiversity gain through habitat creation and enhancement.
- Aim to off set any potential losses in biodiversity.

# SITE DESCRIPTION AND CONTEXT

The site comprises an irregularly shaped parcel approximately 7800 squm (0.78 ha) in size, centered on NGR TQ732713 and is bound to the north east by minor roads and to the south and west by arable farmland.

Within the wider context, the nature of the area comprises small clusters of rural buildings with associated gardens set within a mostly arable farmland mosaic, criss crossed by a network of lanes and larger roads.


The PEA cites, that located within the mosaic are some areas of increased importance including 'Chattenden Woods and Lodge Hill SSSI – 1800m to the north east and Biodiversity Action Plan Priority Habitats Ancient Semi-Natural Woodland – a single example of this habitat 1800m to the north east Traditional Orchard – six examples with the closest being 325m to the south'

The PEA identifies that the site itself comprises the following habitats :

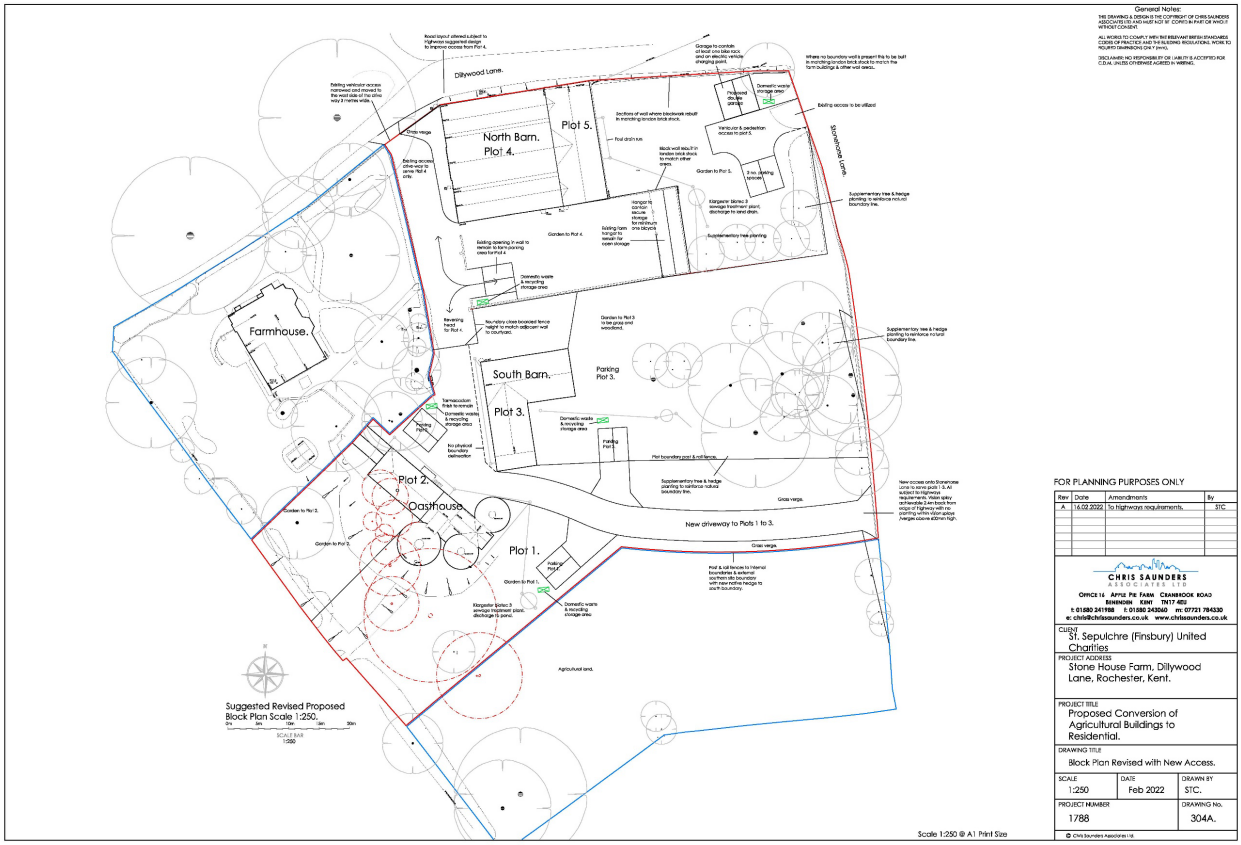
- A1.1.1 Woodland, broad leaved, semi natural
- B6 Poor, semi improved grassland
- G1 Standing water
- J2.1.1 Intact hedge, native species rich
- J2.1.2 Intact hedge, species poor
- J3.6 Buildings
- J4 Bare ground

During our survey of Tuesday 10th August 2021 no changes to these descriptions were required as they remain representative of the condition of the site.

There are lots of opportunities for biodiversity enhancement which outweigh negligible losses of the common and widespread habitats observed.

# DESCRIPTION OF THE DEVELOPMENT

The redevelopment of the site comprises the division of the site into 5.No plots and the subsequent conversion of the existing buildings within each plot towards a residential end use with the remainder of the plot comprising garden and areas of hard standing parking with units 1, 3 and 5 gaining new detached double garage blocks set within the areas of garden.




# BIODIVERSITY LOSSES

The footprints of these proposed new structures are relatively small and will result in a minimal losses of B6 Poor, semi improved grassland habitat in plot 1 and 3 only equating to approximately 98 sqm. Other plots already comprise bare ground in which these will be constructed.

A new access will be created off Stonehouse Lane to service plots 1 and 3 comprising a hard standing driveway. This will result in losses of approximately 482 sqm of B6 Poor, semi improved grassland habitat.

As part of the works, 10 trees have been earmarked for removal within plots 1 and 2 and a further 14 from plots 3 and 5. This will result in losses to A1.1.1.Woodland, broadleaved, semi natural habitat.

# BIODIVERSITY ENHANCEMENTS DESIGNED TO OFF SET LOSSES

- During the development phase, efforts should be made to retain and protect as much of the established vegetation outside of the immediate development foot print limiting disturbance and degradation where possible.

- When the new boundary lines are created between the plots, native species rich hedgerows should be planted in addition to any fence or linear feature installed where possible, but as a minimum as indicated. Planting should be undertaken on both sides of the fence line to create, in the ideal, a 3m wide hedge with multiple rows of planting.

  Native shrubs and trees including hawthorn, holly, elder, field maple, blackthorn, beech and hornbeam should be included with rambling plants, including wild rose, bramble and honeysuckle.

  This will result in the creation of around 190 linear meters of new habitat.

- 380 linear meters of edge habitat will also be created which will help to offset biodiversity losses associated with loss of grassland.

- To maintain the character of the wider mosaic and to offset some of the losses relating to removal of mature trees, a minimum of 24 native standard trees should be planted within the hedgerows and allowed to mature. Species should include Holly, Horse Chestnut and Oak.

- Direct replacements of the willows around the edge of the pond should not be made as allowing a lighter canopy I this area will aid biodiversity gain around the pond.

- The boundary delineation alongside Stonehouse Lane should be kept wide enough to maintain a descent grass verge habitat in order to main connectivity for reptile populations should they be present.

- The incorporation of bat and bird boxes throughout the site are a great way to further enhance the wildlife value of the development by creating nesting habitat for a range of bird species and roosting locations for bats close to foraging habitat.

# HABITAT ESTABLISHMENT

Planting is best carried out from late October through to late February to allow young trees to establish roots before summer droughts, however if the area is prone to flooding or seasonally wet, planting should be delayed to avoid these periods, as planted trees can be damaged and uprooted by high water flows.

Similarly, in prolonged periods of hot weather new planting should be irrigated.

Avoid planting in straight lines but including some clumps for diversity.

Open mesh tree tubes should be used and robust stakes for standard trees, to offer protection during establishment, otherwise waterlogging and rotting of trees is common in wetter areas. Alternatively, use no tubes and overplant to compensate for losses from animal browsing where appropriate.

# MAINTAINANCE

- Where new habitat is created, it should be maintained for a period of no less than 5 years.
- The woody element of planting should be maintained at less than 6 m tall to prevent the natural transition of the habitat to woodland.
- Dead, damaged or distressed individuals should be replaced within the first available growing season.
- All management activities should avoid the nesting bird season – March to August inclusive.
- Hedgerows should be cut on a biennial basis primarily during January and February which will allow woody species to provide seed and fruits for birds and mammals.
- The habitat will take time to establish and complexity will develop over a number of years through natural succession. A 100% success rate is unlikely, however with commitment to management biodiversity enhancement will be achieved.

# BIODIVERSITY ENHANCEMENT PLAN


Gapping up with native woody species : spindle Euonymus europaeus, midland hawthorn Crataegus laevigata, guelder rose Viburnum opulus, field maple Acer campestre, wild privet Ligustrum vulgare and hazel Corylus avellana.

Edge habitat

Native species rich hedge

Standard tree planting

New species rich hedgerow

Gapping up

Standard tree

# Further biodiversity enhancements:  on a landscape level.

Hedgerows are an ecologically important habitat on both a local and national scale, being a UK Habitat of Principal Importance and a priority habitat on the Kent BAP. Hedgerows act as important wildlife corridors, and provide habitat for a range of species including nesting habitat for birds and foraging corridors for bats.  Retention of such features are also important to maintain the character of the landscape.

Expanses of remaining introduced shrub could be enhanced with the inclusion of native species to provide winter berries and spring nectar sources for a range of faunal species.

Gaps could be planted up with native woody species such as spindle Euonymus europaeus, midland hawthorn Crataegus laevigata, guelder rose Viburnum opulus, field maple Acer campestre, wild privet Ligustrum vulgare and hazel Corylus avellana.

Planting methods for gapping up and improving existing hedgerows should comprise use of a double row of staggered plants (approximately 9 per linear metre) each of which should be protected from mammal grazing by the inclusion of protective gro-tubes and/or appropriate protective fencing, unlikely to be a significant issue given the domestic nature of the site.

Although not fully applicable here, consideration should be given to protection of retained features during the construction phase.  Retained trees must be protected in accordance with British Standards in accordance with British Standard 5837: 2012, Trees in relation to design, demolition and construction – recommendations.

## Native hedgerow species selection

### Shrubs

Hawthorn is probably our most common shrub having been extensively used as a hedgerow plant. Hawthorn is an excellent shrub for a stock fence as its spiky structure discourages browsing.

Blackthorn, a similar thorny shrub, is special because the flowers open before the leaves, so they form a white mass in the otherwise dead looking hedge in the spring before anything else flowers. Later in the year bitter black sloes are produced that are popular with birds. However, unlike hawthorn blackthorn produces suckers that can enable the shrub to spread out from the hedge and encroach into neighboring fields, making it an important habitat for dormice and brown hairstreak butterflies, among others.

Field maple is our only native maple and more often seen in the hedgerow as a shrub than as a tree because it responds well to being cut and regrows with numerous, vigorous shoots. The honeydew produced by the leaves is a good food source for white hairstreak butterflies. Field maple also supports several species of moth caterpillars.

Hazel is commonly used for hedging. As well as supporting five species of moth that are specialist feeders on hazel, this plant is incredibly important to many invertebrates, birds and mammals because of the protein-rich nuts it produces in the autumn.

Bramble is a invaluable plant because its blackberries, flowers and nectar provide a food source for invertebrates as well as for many bird and mammal species. The thorny stems also create a safe nesting place for many birds and small mammals such as hazel dormice.

Other shrub species to encourage or plant that are beneficial as food sources for wildlife include wild privet, spindle, dog rose, field rose and guelder-rose.

### Species selection

Any ornamental species proposed should be of native origin and locally sourced.

# LIMITATIONS

Whilst every effort was made in the field survey to provide a comprehensive description of the site, no investigation can ensure the complete characterisation and prediction of the natural environment. Also, natural and semi-natural habitats are subject to change, species may colonise the site after surveys have taken place and results included in this report may become less reliable over time.

Survey data is generally only considered valid if it is from the current or previous active season. In some cases, surveys up to 3 years old may be considered acceptable by consultees if the habitats have not significantly changed in the intervening period.

At the time of the site survey there was sufficient vegetation growth to classify the habitat and it was not too late in the year to be able to assess habitat condition based on species present, habitat structure and where appropriate evidence of disturbance or damage. The condition assessment in this report was based on the habitats that were present during the appraisal.

# CONCLUSIONS

It is anticipated that post development, with the inclusion of the above measures, the sites value for biodiversity and wildlife will be increased and any losses suitably mitigated.

Attention should be given to:

- Protection of the remaining habitat during the development phase.
- Creation of new species rich continuous hedgerows.
- Gapping up of the existing hedgerow on the site boundary.
- Embellishments for birds and bats.
- Long-term monitoring has also been proposed to ensure biodiversity enhancement is achieved post development.
- Works should be timed so that development activities do not interface with the new planting, or protection measures put in place to ensure protection.

It is recognised that this document may need to be updated once specific detail of the proposed landscaping scheme a have been designed and at this stage a biodiversity Net Gain calculation committed to demonstrate whether the compensation measures recommended satisfy and off set any losses.