

HABITAT ENHANCEMENT PLAN

BOUGHURST FARM, LEYWOOD ROAD,
MEOPHAM, GRAVESEND, KENT DA13 0UD

for

GREGORY OHLSON

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REPORT CONTROL SHEET

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INTRODUCTION

This report has been issued in response to Planning Application Case Number:20231000 for the demolition of the existing workshop and storage building and construction of a new car port, workshop and storage building with associated turning and visitor parking area, that has been granted with the following conditions:

- 1) *Prior to any above ground works taking place, an ecological enhancement plan shall be submitted to and approved in writing by the Local Planning Authority. It shall include details of where the bat and bird boxes detailed within the Preliminary Roost Assessment Survey will be located within the site. The details shall be implemented as approved and maintained thereafter.*

Reason: To ensure no net loss of biodiversity in accordance with Policy CS12 of the Gravesham Local Plan Core Strategy 2014.

Section 6.4 of the Gravesend Local Plan Core Strategy 2014 states that Gravesham has significant natural resources. These include sites of international and national significance for wildlife such as the Thames Estuary and Marshes as well as local wildlife sites. It also includes the Kent Downs Area of Outstanding Natural Beauty which is a nationally important landscape as well as large areas of accessible countryside. The Borough also has a number of public greenspaces such as Riverside Leisure Area and Shorne Country Park, indoor sports facilities such as Cygnet Leisure Centre and Meopham Leisure Centre, and outdoor sports facilities such as outdoor tennis courts and bowling greens at Windmill Hill Gardens. There are some issues in terms of the quantity, quality and access to some greenspaces and indoor and outdoor sports facilities in the Borough.

As a result of the above, there is a need to conserve and enhance the Borough's high quality natural environment. There is also a need to protect, enhance and make adequate provision for greenspaces and indoor and outdoor sports facilities to meet the needs of the existing and future population of the Borough. In addition, it will

be important to prevent adverse impacts on the birds and habitats of the internationally important wildlife sites, including disturbance to birds from uncontrolled recreational intrusion on the marshes.

This document will support clients in ensuring compliance with current legislation, official policy, due diligence and agreed¹ standards of best practice relating to ground and habitat disturbance resulting from construction operations at Boughurst Farm, Leywood Road, Meopham, Gravesend, Kent DA13 0UD.

¹ In particular [in accordance with](#) the Chartered Institute of Ecology and Environmental Management (CIEEM) and British Standard BS 42020: 2013 *Code of practice for biodiversity in planning and development*.

BACKGROUND

The site was subject to a Preliminary Roost Assessment on 10 August 2023 (Arbtech Consulting Ltd.) and was found to be **negligible** for bats.

However, recommendations within the report to improved biodiversity were made.

HABITAT ENHANCEMENT SCHEME

Our prescription for the enhancement scheme is set out below. It is important for the ecological success and biodiversity protection and ongoing enhancement that all measures are carefully executed and monitored.

1. Hedgerows

Any hedgerows on site require to be managed for biodiversity by the site owners. Management should be carefully guided by the appended approved Betts policy, taking into consideration the following:

- Trimming will be carried out between September and February to avoid active birds' nests.
- The root zones of the hedges and their trees will be protected by keeping ground disturbance operations away from them.
- The ecological resources of dead wood, fungi, sap runs and epiphytes (ivy, lichens, bryophytes) will not be removed.
- The hedge ground flora will be maintained. This will be achieved by avoiding cutting ground vegetation within 1–2m either side of hedges, except occasionally in winter.
- The hedgerow will be cut annually to maintain a tall (2m), wide (at least 1m) rectangular or inverted U or A shape. The hedgerow trees will be retained. At least 30% of species such as hawthorn that fruit on the previous year's growth will be cut only in alternate years to allow production of flowers and haws.

2. Installation of bird, bat and pollinating insect habitat

For locations, please refer to Figure 1, below.

Bat Boxes

(TN1) Two Schwegler 2F (or similar) Bat Roost boxes will be installed on a suitable tree at a height between 3–6m, facing south-west. These will provide permanent new roosting opportunities for bats (please see Figure 1 for locations). The boxes are manufactured from long-lasting Woodcrete, will endure for at least 20–25 years

and do not require maintenance. The boxes will be positioned to avoid direct sunshine and artificial lighting.

Bird Boxes

Bird nest boxes will be provided both on the new house and on suitable trees on the site to provide nesting habitats for a variety of bird species.

- (TN2) One **Vivara Pro Woodstone House Martin** (or similar) nest boxes. These should be sited underneath the eaves or gable on exterior walls of the new building.
- (TN3) Two **2GR Schwegler Nest Boxes** (or similar) with a single oval entrance hole (30mm x 45mm) to be installed on suitable trees on the site (Figure 1). These boxes are suitable for coal tit, blue tit, great tit, redstart, nuthatch and other birds.
- (TN4) One **Schwegler 1B nest box (26mm hole)** (or similar) and
- (TN5) One **Schwegler 1B nest box (32mm hole)** are to be installed on the south-easterly aspects of the main trunks of mature trees to be retained at the site boundaries. These boxes will attract smaller passerines generally, including great tit, blue tit, coal tit, nuthatch and house sparrows.
- (TN6) Further potential for nesting birds can be found with the installation of one Barn Owl Trust **Barn Owl Nest Box for a Tree**.

Nest boxes should be hung at a height of at least 1.5m and should be angled so that they face away from the prevailing wind (usually south-westerly in the UK) and out of direct sunlight or artificial lighting. The chances of occupation are higher if there is good tree or hedge cover nearby, as these will provide a source of insect food for the nestlings when they hatch. Bird boxes require one annual clean in autumn (*i.e.* outside the bird breeding season, which is considered generally as March to the end of August in the UK). Care should be taken in case bats have occupied the bird boxes, in which case they must not be disturbed other than by a suitably licensed person.

Pollinating Insect Habitats

Pollinating insects such as bees, beetles, wasps, butterflies and moths should be encouraged by planting native flowering plants that offer a succession of flowers in a ‘wild area’ of the site (TN7 on Figure 1 would provide an idea location – however the location can be determined by the landowner. In addition, two **Schwegler wood-concrete insect nesting aids** (or similar) should be installed in a sunny area of the site that is protected from the wind and rain near the wild area.

3. Hedgehog, amphibian and reptile refugia

- (TN7) The ‘wild area’ of the site (Figure 1) to be created will also provide habitats and refugia for small mammals including hedgehogs, for amphibians in their terrestrial phase, and for reptiles. The area will be in a sunny location offering partial shade and left unmanaged, although occasional cautious strimming following hand search may be necessary in some parts to provide basking areas for reptiles.
- A proportion of the ‘wild area’ is to be sown with **Emorsgate EM1 General Purpose Wildflower/Meadow Mix** (or equivalent but always using British native seed). This area should only be cut twice annually following a careful pre-cut check for vulnerable fauna, once to a height of 10–15 cm in mid to late March, then once again to the same height at the end of the flowering season in early October. All the cuttings should be removed and composted.
- Two Vertical and horizontal log piles from felled trees will be created to provide habitats for invertebrates and small mammals with the wild area (TN7).
- Two **Woodcrete hedgehog domes** will be installed in the ‘wild area’ in dry, sheltered spots.

4. Ongoing Management

Table 1: Project list and summary prescription ([see previous section for full text](#)) with details of the programme of work, including season when work should be carried out, frequency (no. of times per year) of operations.

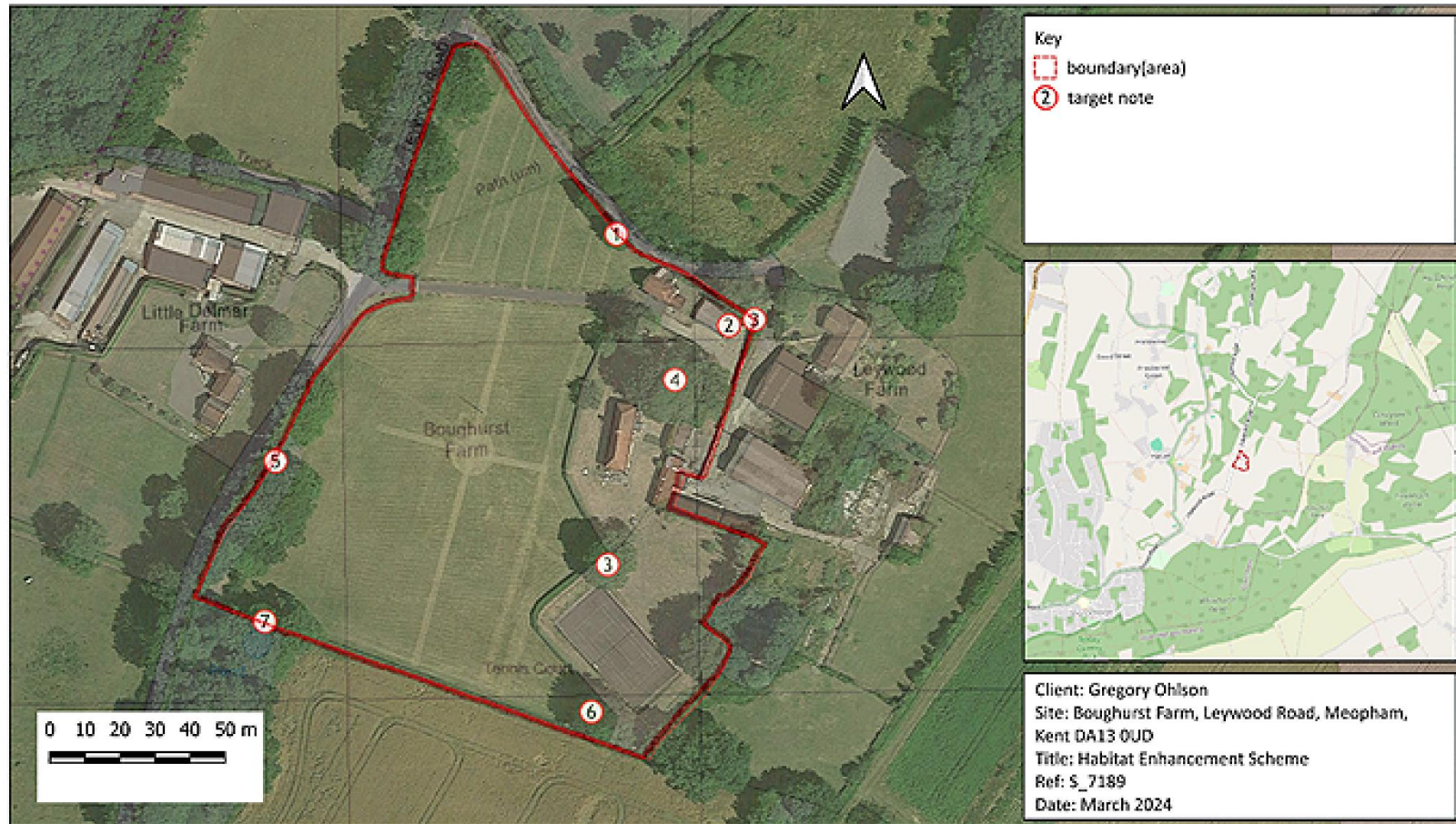
KEY: A = Autumn, W = Winter, Sp = Spring, Su = Summer, C = Client.

PREScription	YEAR(S)	SEASON	FREQ. (per year)	RESPONSIBILITY
Grassland management Cutting of the meadow managed areas. All arisings to be removed.	All	A	1	C
Shrub & Trees Retain and protect current species.	All	W/S p	1	C
Hedgerows. Retain and protect current species.	All	A/W	All	C
Retain & protect habitats of interest.	All	All	All	C
Avoid impact of new lighting	1	-		C
Birds & Bats. Install bird & bat boxes	1	W	N/A	C
Birds & Bats. Maintenance & monitoring of bird and bat boxes.	All	1	S/W	C
Hedgehog, amphibian and reptiles Creation of wild area	1	Any	N/A	C
Assessment and evaluation of existing ecological value and condition	Pre	Any	N/A	N/A
Periodic Monitoring and Review of implementation and biodiversity performance	1,3,5	Any	All	C

5. Ecological Support Network

Betts Ecology is committed to the growth of biodiversity across the development site and will be available for continued expert advice and ecological clerks of work (ECoW) when required. Advice should be sought if any failures are identified during monitoring and the action plan amended to trigger remedial as and when required.

HABITAT ENHANCEMENT PLAN



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Please note: this plan is intended only to indicate the approximate location of features and should therefore, not be treated as an accurate scale plan.

Figure 1: Plan to show habitat and biodiversity enhancements - please refer to the target notes in the main text.

APPENDIX

HEDGEROWS — MANAGEMENT POLICY AT BETTS ECOLOGY



Crataegus laevigata Midland hawthorn flowering in a well-managed hedge (berries inset)

Native hedgerows are one of the defining features of the British lowlands. They can be centuries old and mark ancient boundaries, often in combination with a ditch and lynchet, or they can be recently planted with a mix of native woody species. All are valuable wildlife habitats, nesting/roosting/sheltering places and corridors along which species can move and connect with other habitats. They can be thought of as linear woodland, especially when they contain trees, as many do. A mature hedge with trees connecting two tracts of woodland is an especially important feature that isolates wildlife if broken by a new road or other intrusion.

Part of the hedgerow habitat is its ground flora. Beneath a hedge, we find shade-loving vegetation and spaces where the old favourites of our walks and paths so often grow, their common names reflecting their botanical place: Jack-by-the-hedge, hedge woundwort, hedgerow crane's-bill, *etc.*



Anemone nemoralis wood anemone is a common flower at the base of hedges.

Research² shows that hedgerow management has a significant influence on the value of hedges for wildlife in terms of ecological connectivity (“wildlife corridors”), faunal food resources (especially flowers, fruit, and foliage), and in how it changes ecological factors such as predation and parasitism. Hedgerow management regimens affect different wild species in different ways, so heterogeneity of management is considered the preferred option over a large site, but the best “standard” regime is to cut in late winter rather than autumn and to promote taller, wider hedges using an “incremental cutting intensity” that allows smaller hedges to grow by, say, 10cm in breadth and width each year.

MANAGEMENT

To maximise their biodiversity value, we follow a particular regime for managing hedges:

-  Limit hedge cutting to the period September–February to avoid active birds’ nests with a preference for late winter cutting for general biodiversity benefits.
-  Protect the rhizosphere (root zone) of hedges and their trees by keeping ground disturbance operations and new buildings away from them.
-  Where hedges are gappy, infill with new native plantings.
-  When hedges are cut, avoid any trees and aim to maintain the hedge with thick bushy growth, trimming annually (see below) but allowing species such as hawthorn that flower and fruit on the previous year’s growth to remain uncut in parts, such as along one side of the hedge. Instruct grounds staff and contractors to avoid using flails in general hedge trimming and to use bespoke hedge-cutting tools that trim tidily if they can. Flails can leave an

² E.g. that collected in *The Ecology of Hedgerows and Field Margins* edited by J. W. Dover (Routledge, 2019).

untidy “slashed” finish and can be inimical to some species when they smash up the branch ends and thus crush those invertebrates that live there, such as the twig-tip pupae of the hawthorn sawfly *Trichiosoma tibiale*, which otherwise would mostly fall to the ground with the cut twigs rather than be crushed.

-  For Favourable Conservation Status (FCS) wide, tall hedges are needed, so aim for no less than 2m broad and 3m tall, usually in an “A” shape, trimming smaller hedges incrementally to increase width and height by about 10cm per annum.
-  Maintain the ecological resources of dead wood, knot holes, fungi, hollows, sap runs and epiphytes (ivy, lichens, bryophytes, *etc.*).
-  Maintain the umbricolous hedge-bottom flora at FCS, which means no or only occasional winter strimming, maintaining a meadow strip of a metre or so along each side of the hedge and avoiding short mowing there; and enrich the ground flora where necessary with native herbaceous and other species.
-  Where possible, manage grassland that runs up to hedges as a species-rich pollinator-positive, typical type (such as the mesotrophic National Vegetation Classification MG5 where there are circumneutral soils). (See Betts’ grassland policy in this series - please enquire.)

DESIRABLE NATIVE WOODY HEDGEROW SPECIES

Thin, gappy, shorn, species-poor hedges are undesirable for biodiversity and nature conservation, as are monospecific barriers of exotics such as cypress, garden privet and laurel. Thick, tall species-rich hedgerows should be promoted. Here are some desirable species:

Acer campestre field maple
Alnus glutinosa alder
Betula pendula silver birch
Betula pubescens downy birch
Carpinus betulus hornbeam
Cornus sanguinea dogwood
Corylus avellana hazel
Crataegus laevigata Midland hawthorn
Crataegus monogyna hawthorn
Cytisus scoparius broom
Euonymus europaeus spindle
Fagus sylvatica beech
Frangula alnus alder buckthorn
Fraxinus excelsior ash
Hedera helix ivy

Ilex aquifolium holly
Lonicera periclymenum honeysuckle
Malus sylvestris crab apple
Populus nigra black poplar
Populus tremula aspen
Prunus avium wild cherry
Prunus domestica wild plum
Prunus spinosa blackthorn
Pyrus pyraeaster wild pear
Quercus robur pedunculate oak
Rhamnus cathartica buckthorn
Rosa canina agg. Dog rose
Salix caprea goat willow
Salix cinerea agg. grey willow
Salix fragilis crack willow
Salix viminalis osier
Sambucus nigra elder
Sorbus aria common whitebeam
Sorbus aucuparia rowan
Sorbus torminalis wild service-tree
Taxus baccata yew
Tilia cordata small-leaved lime
Tilia x europaea lime
Ulex europaeus gorse
Ulmus glabra wych elm
Ulmus procera English elm
Viburnum lantana wayfaring tree
Viburnum opulus guelder-rose

Please also read our other policy and biodiversity papers on our web site:
<https://bettsecology.co.uk/policies>.

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Scott Latham – Senior Ecologist

Scott has extensive experience and over a decade's expertise in professional ecological consultancy, built on a lifetime's involvement in a range of environmental science and natural history subjects both in the UK and overseas (Sri Lanka, Uganda, South Africa, the USA and several continental European countries). His career has included species reintroduction, human-wildlife conflict resolution and legally protected species work under licence. Scott is practised in GIS, EIA, wildlife law, animal behaviour, ornithology, entomology and a range of applied ecological topics as well as project management and planning. He is also Chair of the Staffordshire Squirrel Project and is involved in various Professional Institute initiatives.

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