ECOLOGICAL IMPACT ASSESSMENT

Greystoke Land

Pamington, Ashchurch

Ref: 1340
November 2023

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1. INTRODUCTION

Background

1.1 Grass Roots Ecology has been commissioned on behalf of Greystoke Land to carry out an ecological impact assessment on land at Pamington (the 'application site'), near Ashchurch, pursuant to outline planning proposals for approximately 175 residential dwellings together with associated access and green space (the 'proposals').

Objectives

1.2 This ecological impact assessment sets out the findings of a desk study, various extended phase 1 habitat survey visits and a series of further (species-specific) surveys at the application site and in doing so:

a) determines the main habitat types;
b) evaluates the ecological value;
c) identifies any actual or potential habitat or species constraints;
d) assesses the ecological impact of the proposals in terms of habitats and species, both in relation to the construction and operational phases;
e) identifies any mitigation/compensation which may be required to reduce the impacts during the various phases; and
f) identifies potential opportunities to enhance the ecological value of the application site in line with forthcoming biodiversity net gain targets.

2. PLANNING POLICY, LEGISLATION AND GUIDANCE

National Planning Policy Framework (September 2023)

2.1 Chapter 15 of the revised National Planning Policy Framework (NPPF) (Conserving and enhancing the natural environment) sets out the Government's policies on biodiversity, landscape and geological conservation. Insofar as ecology and biodiversity is concerned, NPPF requires that the planning system and development planning policies should contribute to and enhance the natural and local environment.

2.2 Paragraph 174 sets the overarching objective to "… *identify and pursue opportunities for securing measurable net gains for biodiversity*".

2.3 When specifically determining planning applications, local planning authorities should apply the following principles as set out in paragraph 180:

- "*If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- *development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
- *development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and*
- *development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.*"

2.4 In relation to developments that could have a significant impact on European and Internationally designated wildlife sites, the 'presumption in favour of sustainable development' does not apply (paragraph 182).

2.5 In terms of elements which are of relevance to the proposals, the following considerations and aims have informed this ecological impact assessment:

- Minimising adverse impacts on habitats and species;
- Seeking gains for biodiversity; and
- Avoiding adverse impacts on any statutory designated wildlife sites, such as Sites of Special Scientific Interest (SSSI), European or International designated sites.

Legislation

2.6 The recent enactment of the Environment Act 2021 now triggers biodiversity net gain principles through Schedule 14 (which amends the Town and Country Planning Act 1990) and is set to become mandatory in early 2024 following implementation of the forthcoming Biodiversity Net Gain Regulations. New planning applications validated after adoption of the Biodiversity Net Gain Regulations will be required to provide at least 10% biodiversity net gain where they result in habitat loss or degradation.

2.7 Other legislation relating to wildlife and biodiversity considered to be of relevance to the proposals includes:

- Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora;
- Council Directive 2009/147/EC on the conservation of wild birds;
- The Conservation of Habitats and Species Regulations 2017 [as amended by The Conservation of Habitats and Species (Amendment) (EU Exit Regulations 2019)] (collectively referred to as the 'Habitats Regulations' hereafter);
- The Wildlife and Countryside Act 1981 (as amended);
- The Natural Environment and Rural Communities (NERC) Act 2006; and
- The Protection of Badgers Act 1992.

BS 42020:2013 Biodiversity

2.8 The British Standards Institute has published BS 42020:2013 to provide a coherent methodology for biodiversity management. It seeks to promote transparency and consistency in the quality and appropriateness of ecological information submitted with planning applications and applications for other regulatory approvals.

2.9 BS 42020:2013 also refers to the recognised guidelines on ecological impact assessment published by CIEEM[1]. These guidelines provide recommendations on topics such as professional practice, proportionality, pre-application discussions, ecological surveys, adequacy of ecological information, reporting and monitoring. The guidelines are referred to later in relation to the assessment methodology.

Natural England's Standing Advice

2.10 Natural England has published Standing Advice relating to protected species which serves to support local planning authorities and forms a material consideration in determining planning applications. This guidance has been given due consideration, including other detailed guidance which it relies upon (as referred to elsewhere in this assessment), in the scoping of ecological surveys and ecological assessment.

[1] CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester

3. METHODOLOGY

Background

3.1 A comprehensive ecological impact assessment has been performed and forms the ecological baseline from which potential impacts on ecological receptors can be identified and assessed.

3.2 Where any potential adverse impacts have been highlighted, appropriate mitigation measures are identified. Enhancement measures in the spirit of planning policy are also prescribed.

3.3 The value of the habitats within the application site and any nearby ecologically designated wildlife sites which may be affected by the proposals have been assessed with due regard to CIEEM's guidelines on ecological impact assessment (see below).

About the Author

3.4 This ecological impact assessment has been produced by Alexander Heath, Director of Grass Roots Ecology, who is a 'suitably qualified ecologist' with nearly 15 years of experience as a practising ecological consultant and over 20 years of experience within the environmental assessment and development planning sectors. The author holds both Bachelor of Science and Master of Science degrees in ecology related subjects, is a full member of CIEEM and possesses relevant European Protected Species licences with Natural England.

Consultation

3.5 A pre-application submission (Ref. 23/00045/PRE) was submitted to Tewkesbury Borough Council and comments were made by their Planning Ecological Advisor. To summarise, the following matters were raised:

- Confirmation that there is no initial objection in terms of ecology;
- Request for areas of public open space and other green space to be keep relatively free from recreational disturbance to maximise their value for ecology;

- Confirmation that the layout would seem to limit any disturbance on farmland birds (e.g. Yellowhammer and Skylark) given the extent of habitat retention and proposed buffer planting;
- Confirmation that the application site is located within an amber impact risk zone with respect to Great Crested Newt; and
- Requirement for the proposals to achieve a 10% biodiversity net gain.

Desk Study

3.6 Ecological records were sought from Gloucestershire Centre for Environmental Records (GCER) relating to the 2km search radius for protected/notable species and a 3km search radius for ecologically designated sites. Data received has informed this ecological impact assessment where required and (subject to any confidentiality restrictions) is available on request.

3.7 Information on protected species and statutory designated wildlife sites relating to a wider search area was also obtained where appropriate from inspecting the online National Biodiversity Network (NBN) Atlas[2] and Multi-Agency Geographic Information for the Countryside (MAGIC)[3] databases respectively.

3.8 Regard has also been had where required in relation to priority species and habitats listed within the UK Biodiversity Action Plan (BAP)[4].

Extended Phase 1 Habitat Survey

3.9 An extended Phase 1 habitat survey visit of the application site were first undertaken by Grass Roots Ecology in June 2023 with numerous checks performed as part of other species-specific surveys (see further below) until November 2023.

3.10 The survey visits were performed in line with the methodology set out by the Joint Nature Conservation Committee ('JNCC')[5], as recommended by Natural England, with all habitats and vegetation types recorded and mapped, as shown on Plan GRE 1, together with an indication of their relative abundance. In addition, habitats were

[2] https://nbn.org.uk
[3] http://magic.defra.gov.uk
[4] At the UK level the UK BAP has been replaced by the UK Post-2010 Biodiversity Framework (2012) (Joint Nature Conservation Committee and DEFRA) with all UK BAP species and habitats now known as habitats and species of principal importance or 'priority habitats / species'. The UK BAP contains 1,150 priority species which have been identified based on criteria relating to international importance, rapid decline and high risk. Its also contains 65 priority habitats.
[5] Joint Nature Conservation Committee (JNCC) (2010) *Handbook for phase 1 habitat survey – a technique for environmental audit*.

also converted to UK Habitat Classification habitats to allow assessment under DEFRA's biodiversity metric (see below).

3.11 Notable, rare or scarce plant species were highlighted if present along with evidence of protected species or species of nature conservation importance.

3.12 Target Notes (TN) were employed where necessary to identify any particular features/observations of interest, as shown on Plan GRE 1.

3.13 This technique has been 'extended' to allow any habitat areas of greater potential to be identified for more detailed survey and also serves to identify the need for any further species-specific survey work which may be required to inform the proposals and ensure that all ecological constraints (and impacts) could be identified and fully understood.

3.14 Indeed, this survey method aims to characterise habitats and communities present and is not intended to provide a complete list of all species occurring across the application site.

3.15 All survey visits were performed by Alexander Heath MCIEEM.

Protected and Notable Species Survey

3.16 All signs of protected species or faunal groups encountered during the various survey visits were recorded. This included observations of any tracks or other signs of visible activity. The structure and quality of the habitats present were assessed for their suitability to support faunal groups, paying particular attention to identifying signs of occupation by protected species. In addition, a note was made of any fauna or flora of conservation interest not protected by UK or European legislation. Based on habitat associations the following key species or faunal groups were given particular consideration during the surveys.

<u>Bat Survey</u>

3.17 The habitat suitability for bats was assessed as part of the phase 1 habitat survey visits. This involved assessing the suitability of habitats for foraging and commuting

bats and contextualised through examination of suitable habitat and features in the wider landscape as well as possible flight-lines across the application site following natural linear features such as hedgerows and potential links to wider habitat of importance (e.g. designated wildlife sites). This assessment then followed the criteria in line with Table 4.1 of the bat survey guidance produced by the Bat Conservation Trust (BCT)[6] in assigning its suitability as either negligible, low, moderate or high. As the suitability of the application site for foraging/commuting bats was identified as being moderate together with known populations of Annex II bats species (Lesser Horseshoe bat, Greater Horseshoe bat and Barbastelle bat being present within the data search area) in the local area, specific bat activity surveys involving mobile transects utilising two surveyors equipped with bat recording detectors were performed across the period July – October 2023 (four visits) together with static monitoring through deployment of automated bat recording detectors in strategic locations. Consideration was also given the very recent bat survey guidance update by the BCT[7] during the October transect survey although the methodologies and approach to survey work remains largely the same. In relation to survey effort, whilst surveys have not been performed during the spring period (April/May, as stipulated in Table 8.3 of the latest guidelines) the surveys are considered to be robust and proportionate given the location of the application site and the scale of the proposals, together with the extent of the habitat features of value to bats which are to be retained.

3.18 Any trees likely to be affected by the proposals were also subject to a ground-level assessment for their potential to support roosting and/or hibernating bats in line with guidance produced by the Bat Conservation Trust and JNCC[8] and categorised as either negligible, low, medium or high. This involved searching for features such as peeling bark, cracks/split, compression joints and woodpecker holes and any other features which can present suitable roosting opportunities for crevice-dwelling bat species. Binoculars and a high-powered torch were utilised where required.

Badger Survey

3.19 Particular attention was given to any evidence indicating activity, such as the presence of a sett, well-worn paths/push-throughs, snagged hair, footprints, latrines

[6] Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. The Bat Conversation Trust, London. ISBN-13 978-1-872745-96-1
[7] Collins, J. (ed.) (2023) Bats Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). The Bat Conservation Trust, London. ISBN-978-1-73951 26-0-6
[8] Mitchell-Jones, A.J, & McLeish, A.P. Ed., (2004), 3rd Edition Bat Workers' Manual, 178 pages b/w photos, softback, ISBN-1-86107-558-8

and foraging signs. This survey covered land up to 30m from the boundary where access permitted.

3.20 Where any setts are identified, the following methodology was employed in identifying and recording the number of sett entrances:

- Active entrances: where these are free from debris and vegetation and show other signs of regular usage, e.g. snagger hairs, excavated spoil, footprints;
- Inactive entrances: where there is evidence that the entrance is not in regular use, e.g. presence of debris such as leaves and twigs, living vegetation in or around entrance edge; and
- Disused entrances: where there is no obvious evidence of use, is partly or completely blocked and cannot be used without excavation.

Bird Survey

3.21 All bird species were recorded as part of the various survey visits. Particular attention was given to the potential for the application site to support any notable bird populations, such as those of conservation concern identified on the *Birds of Conservation Concern 4 (2015)*, published by RSPB *et al.* (i.e. the 'Red List') or any rarer, or particularly vulnerable bird species, afforded special protection under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended).

Reptile Survey

3.22 Whilst limited in extent, some field margins have escaped regular management and were judged to provide occasional suitable habitat for common reptile species[10] (Common Lizard *Zootoca vivipara*, Slow-worm *Anguis fragilis*, Grass Snake *Natrix natrix* and Adder *Vipera berus*). As such, approximately 50 artificial refugia (approximately 0.5 m x 0.5 m square sheets of heavy-duty mineral roofing felt) were deployed in July 2023 in suitable locations. This represented a density >100 per hectare which exceeds that recommended within best practice guidelines[9]. The refugia were left in situ for at least 10 days to 'bed-in' before seven check surveys were performed during suitable weather conditions[10] across August to October 2023.

[10] Note that the application site does not contain suitable habitat for the less common UK reptile species (Sand Lizard *Lacerta agilis* and Smooth Snake *Coronella austriaca*) which are afforded full legal protection (like bats and Great Crested Newts).
[9] Herpetofauna Groups of Britain and Ireland (1998) Evaluating local mitigation/translocation programmes: Maintaining Best Practice and lawful standards. HGBI advisory notes for Amphibian and Reptile Groups (ARGs). HGBI, c/o Froglife, Halesworth, Unpubl.
[10] within a constant temperature range of between 10 – 20°C, rain and windy conditions are usually unsuitable, sunny spells after recent rain can be suitable

Great Crested Newt Survey

3.23 A man-made pond is located within the application site and there are others within the vicinity and these were identified and appraised for their suitability to support Great Crested Newts. Whilst it is widely appreciated that without barriers to dispersal Great Crested Newts can traverse distances of up to 500m from their respective breeding ponds and suitable terrestrial habitat within this distance *could* be utilised, it is habitat at much closer distance that is more commonly used. Historically, when Great Crested Newt mitigation schemes were in their infancy, this distance from a development site was taken as the maximum distance at which Great Crested Newts could be relevant to a development scheme. However, more recent guidance has demonstrated that this zone of influence is in reality typically much smaller[11]. Accordingly, identification of any ponds within 250m of the application site was considered to be appropriate.

3.24 Where required and subject to access, this involved a visual survey involving the recognised Habitat Suitability Index (HSI) assessment method as set out in Amphibian and Reptile Groups of the UK's guidance note[12] and sampling and analysis of the water for eDNA.

3.25 Habitats within the application site were also assessed for their suitability for use by Great Crested Newt in their terrestrial phase.

Biodiversity Net Gain Assessment

3.26 DEFRA biodiversity metric version 4.0 (submitted separately) has been completed using the proposed habitats based on the Illustrative Landscape Strategy and accompanying parameter plans produced by MHP Design.

3.27 This baseline assessment is based on the extended phase 1 habitat survey with areas measured/verified using Google Earth Pro.

[11] For example, a research report[11] undertaken by English Nature (now Natural England) in 2004 concluded that "*… the most comprehensive mitigation, in relation to avoiding disturbance, killing or injury is appropriate within 50m of a breeding pond. It will also always be necessary to actively capture newts 50-100m away. However, at distances greater than 100m, there should be careful consideration as to whether attempts to capture newts are necessary or the most effective option to avoid incidental mortality. At distances greater than 200-250m, capture operations will hardly ever be appropriate.*" Moreover, studies by Jehle[11] and Cresswell & Whitworth[11] have also demonstrated that the habitat within 50m of the pond is the most important to Great Crested Newts and supports the majority of the population within its terrestrial phase. Newts generally only disperse beyond this area where there are suitable habitat features linking the breeding pond to the terrestrial habitat.
[12] ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index

3.28 To calculate the ecological baseline unit for the application site the Phase 1 habitat classifications were converted to UK Habitat Classification habitats through the DEFRA biodiversity metric conversion tool and assigned a pre-set distinctiveness value, indicative of the inherent 'value' of these habitats.

3.29 Where required, condition assessments were performed for each habitat in order to provide a measure of habitat quality.

3.30 A strategic significance assessment was applied to the habitats based on their position within the landscape, consideration of local planning policy and biodiversity targets.

Ecological Evaluation and Impact Assessment

3.31 This ecological impact assessment has been performed with due regard to the methodology and approach set out in CIEEM's latest guidelines [13].

3.32 Identification of the zone of influence is the first stage of the assessment process. Indeed, in this instance, the potential ecological impacts of the proposals are largely confined to the application site itself but given the presence of adjacent woodland habitat and proximity to the Avon Valley, consideration has also been given to the following potential impacts, which may spread beyond the application site:

- disturbance to populations within their audible range during the construction phase;
- fragmentation of any 'dispersal corridors' utilised by adjacent populations;
- disruption to habitats/populations within receiving range of dust etc. during the construction phase; and
- Disturbance to species (e.g. bats) through increased urbanisation (principally lighting) during the operational phase.

3.33 Ecological receptors (i.e. habitats, species, populations and ecosystems) present within the application site and its zone of influence were then appraised following the desk study and planning application consultation together with the performed survey work with their ecological importance (value) determined in their geographical

[13] CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine.* Chartered Institute of Ecology and Environmental Management, Winchester. Version 1.2 - Updated March 2022

context based on the following categories: international, UK, national, regional, county, district, local or site-level.

3.34 In identifying these ecological receptors, it is recognised that a development can affect habitats and species both directly (e.g. the land-take required) or indirectly (e.g. through potential impacts identified above in considering the zone of influence).

3.35 Once the relevant ecological receptors likely to be affected by the proposals have been identified, CIEEM's guidelines promote a transparent approach in which an impact is determined to be significant or not on the basis of a discussion of the factors that categorise it. This includes characterising the nature of the likely impacts on each important feature in terms of ecological structure and function, by considering the following parameters:

- positive or negative / beneficial or adverse;
- extent;
- magnitude;
- duration;
- reversibility; and
- timing and frequency.

3.36 Therefore, professional judgment has been applied to determine whether impacts would be significant or not on any identified ecological feature/receptor. Indeed, CIEEM's guidelines state that:

"*… a 'significant impact' is an effect that either supports or undermines biodiversity conservation objectives for 'important ecological features' (explained in Chapter 4) or for biodiversity in general. Conservation objectives may be specific (e.g. for a designated site) or broad (e.g. national/local nature conservation policy) or more wide-ranging (enhancement of biodiversity). Effects can be considered significant at a wide range of scales from international to local.*

A significant effect is an effect that is sufficiently important to require assessment and reporting so that the decision maker is adequately informed of the environmental consequences of permitting a project.

In broad terms, significant effects encompass impacts on structure and function of defined sites, habitats or ecosystems and the conservation status of habitats and species (including extent, abundance and distribution)."

3.37 Accordingly, only ecological features which could undergo *significant impact* and which have been identified as being of sufficient value to be a material consideration in determining the planning application have been assessed and considered in relation to the need for mitigation in this ecological impact assessment.

3.38 Any identified significant impacts (both prior and after any mitigation) within a given geographical area have then been assigned the following categories: major, moderate, minor or negligible.

Assumptions and Limitations

3.39 This ecological impact assessment is based on the submitted Green Infrastructure Parameter Plan together with accompanying Illustrative Landscape Strategy and Illustrative Masterplan produced by MHP Design.

3.40 The trees were subject to visual assessments (from the ground) for evidence of bats and birds and it should be noted that it is not always possible to identify all field signs attributed to these faunal groups. This is particularly so for the former, given their secretive nature and ability to occupy small concealed spaces which are not always visible.

3.41 In terms of Badgers, it should be noted that it is not always possible to identify all field signs attributed to this species, especially where there are areas of dense vegetation (particularly scrub, although largely absent in this instance) as this can conceal features such as setts.

3.42 It is recognised that the HSI scoring system cannot provide unequivocal evidence of Great Crested Newt absence and should therefore be interpreted using appropriate professional judgement whilst factoring in other available factors.

3.43 Invasive plant or animal species listed on Schedule 9 of the Wildlife and Countryside Act, 1981 (as amended) were recorded where seen, although it is not always possible to record these features as they can be concealed by vegetation.

3.44 Ecological data provided by GCER is not exhaustive and the potential for further protected/notable species to occur within the search area cannot be discounted. That said, the potential for any further protected/notable species considerations and constraints has been given full regard as part of the various survey visits.

3.45 Whilst the majority of the phase 1 habitat survey visits were performed within the optimum period, any assessment must be considered as a 'snapshot' of the existing conditions on the day and time of survey and therefore does not represent a comprehensive list of flora and fauna. Indeed, ecological constraints can change over time and it is considered that the findings of this ecological impact assessment are to be valid for a period of one year, after which a habitat/walkover survey should be repeated to check that the baseline conditions have not significantly changed.

4. ECOLOGICAL BASELINE AND EVALUATION

Context and Surrounding Habitats

4.1 The application site represents two fields divided by hedgerows and is located on the southern edge of the settlement of Pamington, near Ashchurch. It measures approximately 13.41 hectares.

4.2 Outside of the settlement, surrounding areas are dominated by further cultivated land. The B4079 forms part the eastern and part of the norther boundaries of the application site.

Ecologically Designated Sites

4.3 There are no statutory ecologically designated sites within 3km of the application site. However, of significant in a strategic context is the wider Severn Estuary Special Area of Conservation (SAC) and Ramsar site as this is hydrologically connected to the Tirle Brook, the latter being situated approximately 500m to the north of the application site at its nearest point. Given the legal protection afforded to this important designated site the potential for 'likely significant effects', pursuant to Regulation 63 of the Habitats Regulations, is given in the following section.

4.4 In terms of non-statutory ecologically designated sites, the nearest is Teddington Grove Local Wildlife Site (LWS), recognised for its ancient semi-natural broadleaved woodland habitat, which is located approximately 2km to the east of the application site. Two other LWSs are located within the search area and are recognised for their amphibian (Walton Cardiff Ponds) and botanical (Teddington Hands LWS) interests. Given the distances and physical separation from the application site, the potential for any adverse impacts on these LWSs have been scoped out and no further consideration has therefore been given in this ecological impact assessment.

Habitats

4.5 Plan GRE 1 shows the habitats within the application site as mapped following the various survey visits. Photographs are included below for reference.

Cultivated Land

4.6 The majority of the application site is cultivated on an intensive basis being managed for cereal crops.

4.7 In terms of field margins, these tended to be limited in extent with the majority observed to lack obvious rank vegetation, although some areas which have escaped regular management were subject to reptiles surveys. Cock's-foot *Dactylis glomerata* and False Oat-grass *Arrhenatherum elatius* tend to dominate with Red Fescue *Festuca rubra*, Timothy *Phleum pratense*, Perennial Ryegrass *Lolium perenne* and Hybrid Rygrasses also observed.

Photograph 1: Cultivated land with field margin and southern boundary hedgerow within western field (looking west)

4.8 Whilst arable field margins are listed as a habitat of principle importance under Section 41 of the NERC Act 2006, this particular habitat within the application site is not managed for nature conservation and is limited in its botanical diversity.

4.9 Accordingly, the cultivated land habitat is judged to be of importance to nature conservation at the site-level only.

Hedgerows

4.10 Hedgerows form the majority of the boundaries of the application site and divide it into two fields. All hedgerows support a shallow ditch which takes on water during wet periods and are subject to regular management and measure approximately 2-3m in height.

4.11 The species composition for all remain similar with Hawthorn *Crataegus monogyna* and Blackthorn *Prunus spinosa* dominating large lengths. Others species present on an occasional to rare basis comprise Bramble *Rubus fruticosus* agg., Elder *Sambucus nigra*, Field Maple *Acer campastre*, Damson *Prunus domestica*, Wild Privet *Ligustrum vulgare*, Dog-rose *Rosa canina* and Guelder-rose *Viburnum opulus*. The ground flora is dominated by Ivy *Hedera helix* and Common nettle *Urtica dioica*.

4.12 Overall, the hedgerows are not considered to be particularly species-rich and would not likely to qualify as being 'important' under the wildlife and landscape criteria of the Hedgerows Regulations 1997. However, native hedgerows are listed as a habitat of principal importance under Section 41 of the NERC Act. Accordingly, they are judged to be of value at the site/local-level.

Pond

4.13 A man-made pond measuring approximately 50 sqm is present in the southwest corner of the application site. Its banks are formed by earth and old clay piles with areas of scrub/trees comprising Elder, Blackthorn and hawthorn with Hemlock abundant in places. Being heavily overshaded on all sides no evidence of emergent/aquatic vegetation was observed. The feature was only observed to hold water from September 2023.

4.14 Whilst man-made and of low intrinsic value currently, the pond is assumed to present a habitat of principal importance under Section 41 of the NERC Act on the basis that the presence of Great Crested Newt (see further below) cannot be ruled out at this stage. Accordingly, the pond is judged to be of value at the local-level.

Photograph 2: man-made pond

Other

4.15 Further small areas of scrub are present along the western and northern boundaries of the application site.

4.16 A short length of trees form part of the northern boundary within the western field where semi-mature Elm *Ulmus procera* with many specimens observed to be dead.

4.17 Small areas of semi-improved grassland form the pedestrian and drainage connection routes. These areas were observed to be subject to grazing (cattle and Sheep) on occasion.

4.18 A section of the B4079 with associated hardstanding and roadside verge is present in the far east of the application site.

4.19 Collectively, these habitats are judged to be of value at the site-level only.

Protected and Notable Species

Bats

4.20 GCER returned records for Common Pipistrelle Pipistrellus pipistrellus, Soprano Pipistrelle *Pipistrellus pygmaeus,* Brown Long-eared bat *Plecotus auritus,* Noctule bat *Nyctalus noctula,* Leisler's bat *Nyctalus leisleri*, Serotine bat *Eptesicus serotinus*, Daubenton's bat *Myotis daubentonii*, Barbastelle Bat *Barbastella barbastellus,* Greater Horseshoe bat *Rhinolophus ferrumenquinum* and Lesser Horseshoe bat *Rhinolophus hipposideros* within the requested search area.

4.21 Whilst subject to intensive management and therefore lacking structure, the hedgerows within the application site represent good foraging and navigating features for bats being well connected to the wider hedgerow network.

4.22 The mobile (transect) surveys were performed in July, August, September and October 2023 (four visits), the results of which are illustrated on Plan GRE 2. The majority of the activity was recorded along the northern, western and southern boundaries of the application site. Common Pipistrelle dominated the species assemblage with occasional Soprano Pipistrelle, Noctule bat and rare occurrences of Lesser Horseshoe bat also detected. No other Annex II bat species were detected. Overall, activity levels were assessed to be low-moderate with no more than 46 registrations over the course of the survey.

4.23 Three automated bat recording detectors were deployed to monitor activity during the period July-October 2023 along the western and southern boundaries of the application site, as shown on Plan GRE 2, and amounted to 89 nights. The majority of activity was again dominated by Common Pipistrelle, with Soprano Pipistrelle, Noctule bat, Brown Long-eared bat, *Myotis* species (likely Whiskered bat *Myotis mystacinus* / Brandt's bat *Myotis brandtii*), Lesser Horseshoe bat and rare occurrences of Barbastelle bat also detected. The full results are appended to this ecological impact assessment.

4.24 In relation to Lesser Horseshoe bat, these were confirmed during the majority of the nights (approximately 65%) along the western end of the southern boundary with a peak of 11 registrations recorded in August. Reduced levels of activity were recorded

along the western boundary of the application site although still registered on 45% of the nights sampled. All timings are indicative of bats utilising these habitat features for commuting purposes. Interestingly, no Lesser Horseshoe hat were detected along the eastern end of the southern boundary.

4.25 In terms of roosting, whilst some screening from adjacent vegetation and the presence of Ivy can conceal/support suitable features on some trees, overall, they were assessed to be of negligible bat roosting potential given the general absence of suitable features (i.e. peeling bark, crack and splits). As such, it is considered that none of the trees support bat roosts and no further survey work (e.g. in the form of emergence/re-entry surveys) was therefore considered to be required.

4.26 Overall, it is considered that the application site is of value to local bat populations at the site-level only.

Badgers

4.27 Numerous mammal activity was observed along the banks to the man-made pond with evidence of digging in exploiting the partially buried clay pipes. Whilst evidence of occupation by Rabbit was observed throughout, the quantity of excavated earth associated with some of the entrances is indicative of Badger, although no evidence suggesting any recent/regular use (e.g. bedding, footprints) was observed. Indeed, it is plausible that a Badger expanded these larger entrances at some point, possibly in an attempt to prey on young Rabbits, or that Rabbits have colonised and expanded a disused outlier sett.

4.28 No latrines or obvious foraging signs were observed within the wider application site.

4.29 Overall, it is judged that the application site is of value to local Badger populations at site-level.

Reptiles

4.30 Specific surveys were performed during the period July-October 2023, the results of which are illustrated on Plan GRE 3. No reptiles were confirmed.

4.31 Whilst no reptiles were detected, the field margins and adjacent hedgerows are judged to be of value to local populations at the site-level.

Birds

4.32 GCER returned a number of records for notable bird species within the search area, and those of most relevance to the habitats within the application site included Redwing *Turdus iliacus* Fieldfare *Turdus pilaris*, Linnet *Linaria cannabina*, Skylark *Alauda arvensis*, House Sparrow *Passer domesticus*, Starling *Sturnus vulgaris* and Yellowhammer *Emberiza citronella*.

4.33 Woodpigeon *Columba palumbus*, Magpie *Pica pica*, Wren *Troglodytes troglodytes*, Chaffinch *Fringilla coelebs*, Great Tit *Parus major*, Blue Tit *Cyanistes caeruleus*, Goldfinch *Carduelis carduelis*, Blackbird *Turdus merula*, Buzzard *Buteo buteo*, Dunnock *Prunella modularis*, Robin *Erithacus rubecula*, Swallow *Hirundo rustica*, Song Thrush *Turdus philomelos*, House Sparrow and Yellowhammer were all seen/heard from the application site during the various survey visits, with at least one breeding pair observed in relation to the latter. In addition, approximately 15 Fieldfare were observed in flight moving south across the application site during the October 2023 visit together with Skylark seen above the neighbouring (also cultivated) field to the south of the application site. Tawny Owl *Strix aluco* was also heard during one of the bat activity surveys.

4.34 Whilst not all of the breeding bird survey season was sampled, it is considered that a robust account of birds has been undertaken in order to assess the value of the application site for breeding birds. In terms of other periods, the application site is not considered to provide optimum habitat for wintering bird species on account of its size and location adjacent to existing built development and a bust road.

4.35 Overall, it is judged that the application site supports a reasonable number of bird species attributed to hedgerow habitats and is of value for breeding and foraging birds at the local-level.

Great Crested Newts

4.36 GCER returned records for Great Crested Newt within the search area, the nearest located approximately 800m to the west/northwest of the application site.

4.37 Based on OS mapping, the nearest pond located outside of the application site is situated approximately 350m to the northwest on the opposite side of built development associated with Pamington and further separated by roads traversing the village. Whilst populations of Great Crested Newt are known in the wider vicinity it is judged very unlikely that populations would utilise terrestrial habitat within the application site at this distance.

4.38 In terms of the pond within the southwest corner of the application site, this feature was observed to be dry for the majority of the summer and did not support water until September. It was therefore not possible to sample any water for eDNA. In terms of its suitability to support this protected species when holding water, an HSI score of <0.5 (poor) was yielded on assessment in September.

Other

4.39 Consideration has been given to whether the application site provides suitable habitat to support the Hazel Dormouse *Muscardinus avellanarius*. However, with no records returned by GCER or any other evidence of known populations in the local area, together with the paucity of suitable habitat within the application site and surrounding areas, the likelihood of encountering this protected species is judged to be very low and no further consideration is therefore given in this ecological impact assessment.

4.40 Hedgehog *Erinaceus europaeus* are known in the local area (with records returned by GCER) with the application site presenting some suitable habitat for this notable species, being listed on Section 41 of the NERC Act 2006.

4.41 It is likely that the application site supports an assemblage of widespread invertebrate species typical of agricultural and hedgerow habitats.

4.42 Given the low value habitats within the application site, no other protected or notable species considerations have been identified.

5. IMPACTS, MITIGATION AND ENHANCEMENTS

Severn Estuary SPA/Ramsar Site

Potential Impacts

5.1 The application site is hydrologically linked (via its wet ditch network) with Tirle Brook situated approximately 500m to the north of the application site and this in turn is within the drainage catchment of the wider Severn Estuary SPA/Ramsar site. Accordingly, the potential for significant adverse effects in the absence of appropriate pollution prevention measures cannot be ruled, pursuant to Regulation 63 of the Habitats Regulations – a adverse impact at the international-level of negligible/minor significance.

Mitigation Measures

5.2 To mitigate any risk of pollution within the drainage catchment it is recommended that the drainage strategy at the detailed design stage adopts appropriate pollution measures where required. Appropriate prevention measures should also be sought during the construction phase and set out within a Construction Environmental Management Plan (CEMP – see further below).

Habitats

Potential Impacts

5.3 The proposals would result in the loss of the cultivated land habitats including a circa. 100m length of hedgerow along the eastern boundary to facilitate vehicular access off the B4079 and some minor gaps created along the dividing hedgerow and along the western boundary. All remaining hedgerow habitat and the pond would be retained as part of new green infrastructure.

5.4 In the absence of mitigation, retained/adjacent habitats could suffer physical damage as well as impacts from dust deposition, contaminated run-off and other pollution sources during the construction phase and this could lead to an adverse impact at the site-level of minor–moderate significance.

5.5 In terms of the operation of the proposals, the absence of appropriate management of the retained and newly created habitats could lead to a general decline in the ecological value – an adverse impact at the site-level of minor significance.

Mitigation Measures

Intrinsic Design Measures

5.6 Retention of the hedgerows and the pond have informed the layout of the proposals with sufficient buffers provide for new habitat creation and for retain/safeguard flightlines for bats (see further below). Further areas for new habitation creation have also been incorporated into a wider green infrastructure strategy to ensure that a significant biodiversity net gain can be achieved.

5.7 The total green space provision accounts for nearly 50% of the total application site area with a large informal area reserved as a village green and wider parkland in the north which will deliver new species-rich grassland and areas for native tree/shrub and orchard planting.

5.8 The green space also includes sufficient space for a range of drainage attenuation features (e.g. basins and swales) which can be designed to provide further ecological habitat.

5.9 These design measures are illustrated on the Ecological Mitigation & Enhancements Plan (Plan GRE 4).

Considerations for further Detailed Design/Reserved Matters

5.10 The forthcoming detailed landscape scheme, which would be secured via planning condition, will be designed in accordance with Plan GRE 4.

5.11 New planting should include a range of native species of local provenance targeting those that provide berry and fruits and which contribute to structure and form for a range of wildlife, such as Hawthorn, Holly, Field Maple, Guelder-rose, Hazel *Corylus avellana*, Silver birch *Betula pendula*, Dogwood *Cornus sanguinea,* Spindle *Euonymus europaea* and Goat Willow *Salix caprea*.

5.12 To compensate for hedgerow loss, new planting should exceed three-fold the loss and thereby achieve the necessary biodiversity net gain.

5.13 The informal green space would be seeded with an appropriate species-rich grassland mixture in consultation with an experienced seed mix supplier to determine the most appropriate mix given the prevailing soil conditions and management requirements.

5.14 New drainage attenuation features would be designed for the benefit of wildlife with attenuation ponds to be designed to support an element of permanent water. These features should also be seeded with a species-rich grassland mix tolerant of wet/ephemeral conditions.

5.15 The retained pond would be enhanced through targeted scrub clearance to allow more light together with new native aquatic and emergent planting.

Construction Environmental Management Plan

5.16 Standard best practice pollution prevention measures, waste management and environmental monitoring will be routinely adopted and would be included within a specific CEMP, which can be secured by way of planning condition and include:

- Hydrocarbons, greases and hydraulic fluids to be stored in a secure compound area;
- All plant machinery to be properly serviced and maintained, thereby reducing risk of spillage or leakage;
- All waste produced from construction will be collected in skips with the construction site kept tidy at all times;
- Excavated soil to be stored on site or removed by a licensed waste disposal unit;
- All materials and substances used for construction to be stored in a secure compound and all chemicals to be stored in secure containers to avoid potential contamination;
- Location of spill kit to be known by all construction workers and implemented in the event of spillage or leakage;
- Skips to be used for site waste/debris at all times and collected regularly or when full;

- All hydrocarbons and fluids to be collected in leak-proof containers and removed from site for disposal or recycling;
- All waste from construction is to be stored within the site confines and removed to a permitted waste facility;
- Contractor to nominate member of staff as the environmental officer with the responsibility to ensure best practice measures are implemented and adhered to, with any incidents or non-compliance issues to be reported to project team.

5.17 Other appropriate provisions under BS42020: 2013 (Biodiversity: Code of Practice for Planning and Development) and BS 5837: 2012 (Trees in Relation to Design, Demolition and Construction – Recommendations) would also be adopted to safeguard retained and other adjacent habitat features.

5.18 Specific method statements for relevant protected/notable species would be adopted as part of the CEMP with all provisions to be overseen by an appointed suitably qualified ecologist who would adopt the role as an ecological clerk of works.

Habitat Management

5.19 New habitats should be managed to ensure their long-term ecological value with the predominant focus on managing the new grassland to maintain its botanical value.

5.20 Informal areas should be managed through an appropriate cutting regime which would likely involve 'hay meadow' management practices to maintain the botanical value in the long-term. This would involve summer cutting no earlier than mid-July with all arisings removed following by a cut in autumn and spring if required.

5.21 All hedgerows should be brought under favourable management with trimming to be performed during January/February to retain a berry crop (for birds) and allow a bushy habit (for bats, see further below) to develop through a three-year rotational cutting regime. Suitable native specimens should also be encouraged to develop into standard trees.

5.22 Such management would be considered in more detail within a forthcoming Landscape and Ecological Management Plan (LEMP) which can also be secured through planning condition on any consent.

Bats

Potential Impacts

5.23 The application site is of value to local bat populations for both foraging and commuting purposes. In terms of Annex II species, it is used on an occasional basis by Lesser Horseshoe bat (mainly for navigating purposes) and on a rare basis by Barbastelle bat but is not judged to be of any high importance for either species.

5.24 No known bats roosts or features potentially suitable for use by roosting bats would be affected by the proposals and the valuable foraging habitat (hedgerows) would be retained, with the exception of some loss along the eastern boundary of the application site to facilitate the access, although loss in this location is not judged to be significant as bat activity was observed to be relatively low here.

5.25 The intrinsic design measures and appropriate management would maintain (if not enhance) the invertebrate food source available within the application site and this is considered to enhance opportunities for all resident bat populations. No adverse impacts have therefore been identified, subject to careful consideration of lighting when concerning those which are less tolerant to artificial light (see below).

5.26 In terms of construction, some temporary lighting may be required for short periods and this could adversely affect some bat species. However, any impacts would be negligible as any lighting requirement would be during the period when bat activity is very low during the winter months (i.e. when the majority of bat species are in their hibernation phase).

5.27 In terms of the operational phase, in the absence of a sensitively designed lighting scheme, the proposals would likely lead to an adverse impact of minor significance at the European-level, this being particularly relevant to Lesser Horseshoe bat and *Myotis* bat populations which have been recorded during the surveys.

Mitigation Measures

5.28 Where any lighting is required during construction, any potential light spill would be reduced by directing light below the horizontal plane, preferably at an angle less than 70 degrees away from the retained hedgerows. Necessary provisions should be included in the CEMP.

5.29 A sensitively designed lighting strategy will be formulated at the detailed design stage to safeguard sufficient dark habitat, with particular attention given to Lesser Horseshoe bats. The layout of the proposals has already incorporated 10m setbacks from built form along the western and southern boundaries, where Lesser Horseshoe bat activity was judged to be of most significance following the bat activity surveys. Here, dark habitat zones where introduced light levels would not exceed 0.5lux would be applied, as shown on Plan GRE 4. At detailed design, careful consideration would also be given to the positioning of buildings so that the gardens face retained/new habitat features where possible, thereby reducing light spill from adjacent built form.

5.30 The lighting strategy would be informed by lighting principles detailed within the Bat Conservation Trust's and Institution of Lighting Professional guidelines (September 2018). Prior to detailed design, a suitably qualified specialist lighting engineer will be appointed to formulate appropriate buffer widths and acceptable lux level limits. Prescribed lighting would adopt the following design principles:

- LEDs
- warm white spectrum (<2,700K)
- dimmable light or motion sensors (PIR) and short timers
- 0% upward light ratio
- careful consideration of position and height
- recessed internal lights
- screening measures (e.g. planting, hardscape, hoods or cowls)

5.31 To provide an enhancement for roosting bats, each dwelling would incorporate inset bat boxes/tubes within masonry/cladding. The specification and exact location will be dependent on the materials prescribed at the detailed design/reserved matters stage. The features should be sited as high up as possible and positioned in a sheltered location away from strong winds and only exposed to the sun for part of the day.

Badgers

Potential Impacts

5.32 Construction activities could result in an adverse impact at the site-level of minor significance through presenting hazards (e.g. uncovered deep trenches/excavations) to any Badgers which may traverse the application site together with failure of necessary protective fencing.

5.33 In addition, encroachment of heavy machinery in close proximity to the mammal entrances adjacent to the pond in the southwest corner of the application site my present further risks to Badgers.

Mitigation/Safeguarding Measures

5.34 Retention of the pond and surrounding vegetation together with setbacks from built form. However, it is recommended that a survey to check for any changes in Badger activity is performed ahead of detailed design.

5.35 During the construction phase, any excavations/trenches will be backfilled nightly, boarded over, or have a ramp or similar protective measure to prevent any Badgers from becoming trapped overnight.

5.36 Further protective measures in the form of fencing should also be adopted in the southwest corner of the application site to safeguard and this should be informed by the ecological clerk of works. Enhance works in close proximity to the retained pond should also be performed by hand thereby reducing the risk of disturbance.

Birds

Potential Impacts

5.37 The removal of hedgerow habitat and other areas of dense vegetation may disturb nesting birds if performed during the months of March and August inclusive – an adverse impact at the site-level of moderate significance.

5.38 Retained and newly created habitats will maintain nesting and foraging opportunities for resident bird populations and this is judged to represent an enhancement at the site-level of minor significance as a mosaic of habitats for a wider range of bird species would be created.

5.39 In relation to Skylark, whilst suitable habitat is present within the application site it is not considered that this notable farmland species would be reliant on the habitats within it given the extent of surrounding cultivated land.

5.40 Whilst the proposals would result in a net reduction in 'open habitat' the retention the majority of trees together with integration with expansive areas of green space would go some considerable way in maintaining foraging opportunities for a range of species.

5.41 However, without well-designed landscape planting and new habitat features of value for foraging and nesting, impacts could result in an adverse impact of minor significance at the site-level.

Mitigation/Safeguarding Measures

5.42 Removal of dense vegetation would be undertaken outside of the nesting bird season (March–August inclusive). However, if removal is required within the nesting bird season then a check survey for nesting birds will be undertaken by the ecological clerk of works (or equivalent suitably qualified ecologist) immediately prior to works taking place with a safe method of clearance agreed if required. If any nesting birds are identified then a suitable cordon may be required (depending on the species encountered) and works would cease until all young have fledged. Such measures would be set out under the CEMP.

5.43 To provide an enhancement for nesting birds, each new dwelling would incorporate inset bird nesting features within masonry/cladding. Again, the specification and exact location would be dependent on the materials prescribed at the detailed design/reserved matters stage.

Great Crested Newts

Potential Impacts

5.44 It was not possible to sample water from the pond within the southwest corner of the application site to test for eDNA as it was not observed to hold water until September. The likelihood of encountering Great Crested Newts cannot therefore be ruled out and on this basis the proposals could lead to an adverse impact of minor significance at the European-level, principally through the risk of killing/injury in the absence of necessary precautions rather than for any habitat loss.

Mitigation Measures

5.45 It is recommended that a further attempt to sample the pond for eDNA is made during the period mid-April to June in line with the adopted survey protocol. On the basis that the majority of the application site represents sub-optimal habitat (being subject to intensive cultivation) and that the layout of the proposals would not significantly alter or prevent the movement of any Great Crested Newts (given the hedgerow retention and extent of proposed green infrastructure) this can be secured by way of a suitably worded planning condition.

5.46 Indeed, if Great Crested Newts are judged to be utilising the pond then a development mitigation license to be informed by further survey work (i.e. aquatic survey) to determine the population size can be secured from Natural England on any consent. A tailored mitigation strategy would also form part of the development mitigation licence application to Natural England. Again, this approach is considered to be appropriate in this instance as the layout of the proposals would not likely require any amendments given the passage for amphibian movement would to maintain together with wider access to higher quality habitat within the wider green infrastructure.

Hedgehog

Potential Impacts

5.47 The proposals would result in the net loss of potential foraging habitat although the majority of features suitable for hibernation would remain unaffected within the retained hedgerows. It is likely that the new gardens would replace the lost foraging habitat providing that access is maintained.

Mitigation Measures

5.48 Hedgehog friendly gravel boards / passage points (10cm x 10cm) should be provided where panel fencing is proposed between residential dwellings.

6. RESIDUAL IMPACTS

Severn Estuary SPA/Ramsar Site

6.1 Adoption of appropriate pollution prevent measures under a CEMP and as part of the detailed drainage strategy would ensure that there would be no significant adverse impacts on this statutory designated wildlife site.

Habitats

6.2 Completion of DEFRA's latest Biodiversity Metric (version 4.0) shows that the proposals at this outline planning stage would achieve over 72% biodiversity net gain. In terms of hedgerows, with new planting at three-fold loss would ensure a over a 17% net gain in hedgerow terms. The completed metric and associated habitat condition sheets is submitted alongside this planning application submission in raw Microsoft Excel format.

6.3 Following the aforementioned precautions during construction, together with the intrinsic design measures, further recommended measures for detailed design and management under a LEMP, it is judged that habitats within the application site would achieve an enhancement at the local-level of moderate significance.

Bats

6.4 Appropriately managed retained and newly created habitats including a sensitively designed lighting scheme would retain foraging and navigating opportunities for local bat populations. This, together with new roosting features on each dwelling, is judged to result in an overall enhancement at the European-level of minor significance.

Badgers

6.5 Adoption of necessary precautions during the construction phase together with new/retained habitats would maintain opportunities for local populations and ensure that there would be no residual adverse impacts.

Birds

6.6 Necessary precautions during vegetation clearance works would ensure that there would be no adverse impacts on nesting birds during the construction phase.

6.7 Provision of enhanced habitats together with appropriate management and new nesting opportunities on each dwelling would provide enhanced foraging and nesting opportunities for local bird populations – an enhancement at the local-level of minor significance.

Great Crested Newts

6.8 It is considered appropriate in this to secure a further attempt to sample the man-made pond for eDNA testing during the period mid-April to June by way of planning condition and that any consent can be granted on the basis that the layout of the proposals already maintain the passage for amphibian movement together with access to higher quality habitat within the wider green infrastructure and enhancements to the pond itself.

6.9 If Great Crested Newt are confirmed to be utilising this pond then a forthcoming development mitigation licence to be sought from Natural England would ensure that the favourable conservation status would be maintained such that there would be no adverse impacts on this this protected species.

Hedgehog

6.10 Provision of Hedgehog friendly gravel boards / passage points (10cm x 10cm) along any panel fencing between plots would maintain opportunities for this notable species and ensure that there would be no residual adverse impacts.

Summary and Conclusions

6.11 A series of ecological surveys have been performed to inform the proposals with the objective of retaining the habitat features of value within the context of the application site, maintaining opportunities for notable/protected species and

ensuring that a 10% biodiversity net gain can be achieved at detailed design in line with forthcoming legislative requirements.

6.12 The majority of the application site is cultivated for cereal crops and therefore managed on an intensive basis which limits any intrinsic ecological value. However, the hedgerows, and a pond in the southwest corner, albeit man-made and currently of low value being significantly overshaded, do offer some value within the context of the application site. Small areas of semi-improved/improved grassland are also present along the proposed pedestrian/drainage connections.

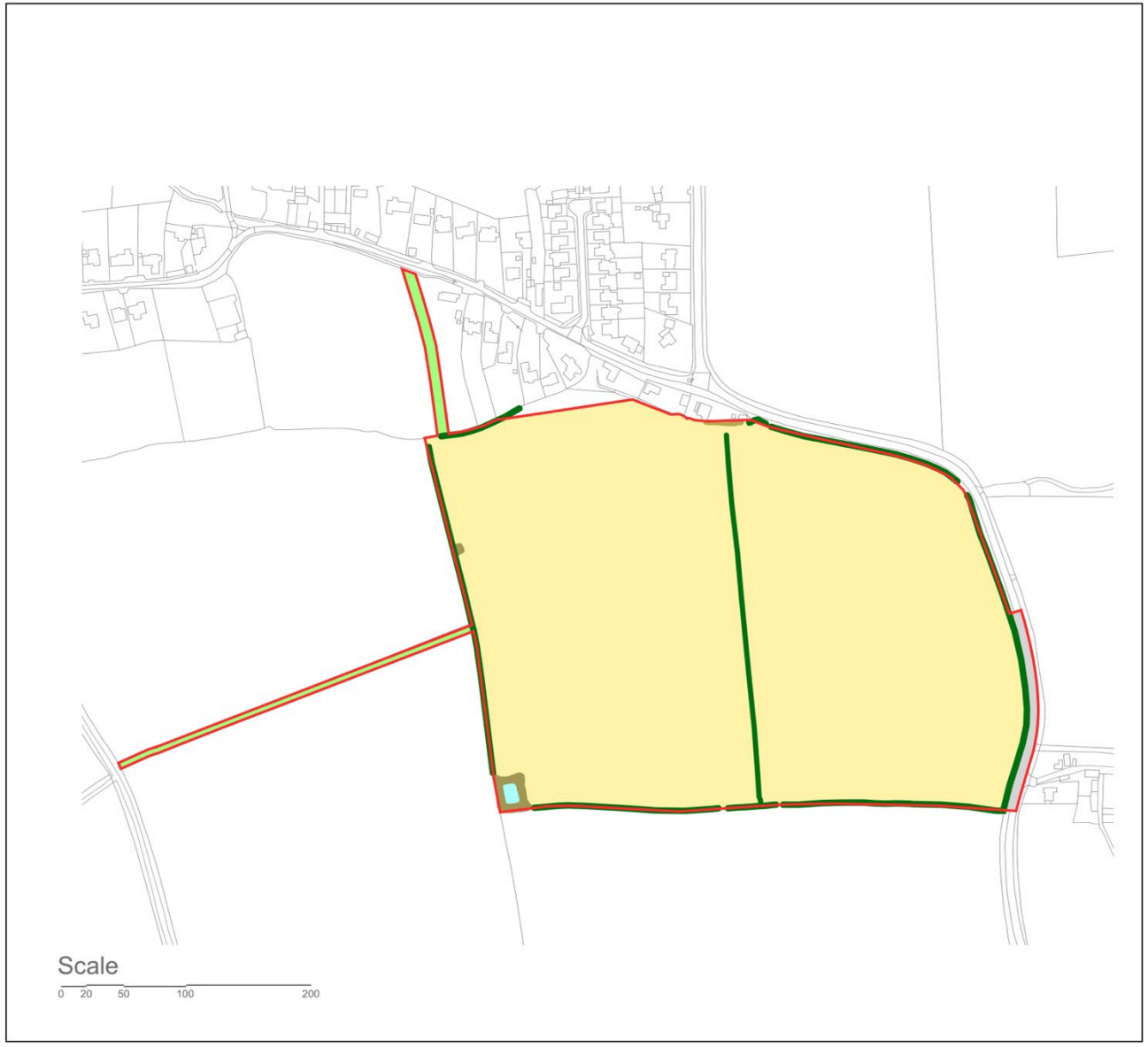
6.13 The hedgerows and pond have therefore been retained and integrated with new habitats within large areas of green infrastructure focussing on new species-rich grassland creation and this accounts for nearly 50% of the total application site area. The retained and newly created habitats would be brought under sensitive management (i.e. LEMP) to maximise their value for wildlife and wider biodiversity.

6.14 In terms of notable/protected species, the boundary hedgerows do provide suitable navigating habitat for horseshoe bats and the proposals have been designed to provide at least 10m buffers (from built form) and thereby ensure that sufficient dark habitat can be provided at the detailed design stage, this being a specific consideration within the submitted outline lighting strategy.

6.15 Enhancements to the retained pond would also bring new opportunities for amphibians, in particular Great Crested Newt which are known in the local area.

6.16 Overall, the proposals at this outline planning stage have been calculated to provide over a 70% biodiversity net gain and there are considered to be no overriding ecological constraints which would preclude development on the application site.

PLANS



PAMINGTON, ASHCHURCH
Plan GRE 1: Habitats Plan

Grassroots ecology

KEY:

- APPLICATION SITE BOUNDARY
- SEMI-IMPROVED GRASSLAND
- CULTIVATED/ARABLE LAND
- SCRUB
- HEDGEROWS
- POND

CLIENT:	Greystoke Land
REF:	1340
REV:	A
DATE:	09.11.2023
SCALE:	see scale bar

north

T: 01386 700072 I E: enquiries@grassroots-ecology.co.uk I W: www.grassroots-ecology.co.uk

PLAN GRE 2: BAT SURVEY PLAN

PLAN GRE 3: REPTILE SURVEY PLAN

PLAN GRE 4: ECOLOGICAL MITIGATION & ENHANCEMENTS PLAN

APPENDICES

BAT ACTIVITY SURVEY RESULTS (STATIC DETECTORS)