LAND AT FURNERS LANE, HENFIELD

Ecological Impact Assessment and Biodiversity Net Gain Assessment

September 2024

Report ref: SWE-P24-0054-R1rev2

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PROJECT: Land at Furners Lane, Henfield

CLIENT: Elivia Homes

REPORT REF: SWE-P24-0054-R1rev2

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DATE OF ISSUE: September 2024

PROJECT DESCRIPTION: Erection of 29 homes with associated landscaping, open space, parking and creation of new vehicular access from Furners Lane.

REPORT SCOPE: Ecological Impact Assessment and Biodiversity Net Gain assessment - non-EIA. This report is not part of an Environmental Impact Assessment further to The Town and Country Planning (Environmental Impact Assessment) Regulations 2017.

BIODIVERSITY NET GAIN STATEMENT

Will the biodiversity gain condition apply? - yes

Pre-development biodiversity value on date of application? – 17.99 habitat units and 1.55 hedge units

Date of assessment - 19th September 2024

Has an earlier date been used? - No

Is the completed metric attached? - Yes, version published on 23.7.24

Has degradation occurred? - No

Does the site contain irreplaceable habitats? - Yes, 2No veteran oak trees

Is a scaled habitat map included? - Yes, see Drawing 0054-2009-5

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1.0 INTRODUCTION AND METHODS

Introduction

1.1 Sam Watson Ecology was appointed by Elivia Homes to carry out an Ecological Impact Assessment (EcIA) and Biodiversity Net Gain (BNG) assessment of a proposal to develop the site known as 'Land at Furners Lane, Henfield'.

1.2 The site is located on the eastern edge of Henfield, in the Horsham District of West Sussex (approximate central grid reference TQ 21798 16061). The site comprises two predominately grass fields separated by an east-west aligned track. The northern boundary is formed by Furners Lane. To the north of this and to the west and south of the site there is existing residential development, allotments and a lawn bowls club. East of the site there is a small group of properties as well as woodland and open countryside.

1.3 A review of historic aerial photos together with anecdotal evidence from local residents indicates that the site was used for arable cultivation until at least 2015, and was then left uncultivated but with periodic cutting. Active management is understood to have stopped some 2 or 3 years ago.

Methods

Desk study

1.4 In order to obtain archive information relating to the ecological interest present within and surrounding the site, the Sussex Biodiversity Records Centre (SxBRC) was contacted in March 2023 to request any information they held relating to statutory and non-statutory nature conservation designations within a 2km search radius of the centre of the site. Protected and/or notable species records were also requested for this search area.

1.5 The desk study also made use of publicly available internet resources including the Government's Multi-Agency Geographic Information for the Countryside (MAGIC[1]) database, and Bing and Google maps, to review Ordnance Survey maps and aerial photographs of the local area to provide contextual information. Information relating to European protected species licences within a 2 km search radius was also reviewed as part of this search.

Extended Phase 1 habitat survey

1.6 A Phase 1 habitat survey was carried out of the site initially on 21st February 2022, with additional detail obtained during visits to the site on 9th August 2022 and 9th September

[1] Multi-Agency Geographic Information for the Countryside, MAGIC.gov.uk

2024. The methodology for the habitat surveys was based on the Phase 1 approach devised by the former Natural Conservancy Council (now Natural England), and updated periodically by the Joint Nature Conservation Committee[2]. This technique categorises and maps the broad habitat types present within the site and targets areas of more interest or that would benefit from further survey. Additional detail was also gathered in the form of representative lists of species compiled for each habitat (an 'extended' Phase 1 survey).

1.7 During the surveys attention was given to identifying any habitats of 'Principal Importance' (HPI) further to Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, (i.e. 'Priority Habitat' types). These were identified based on the descriptions set out by the Biodiversity Reporting and Information Group[3].

1.8 In addition, hedgerows within the site were also assessed for their potential to meet the ecological criteria of an 'Important' hedgerow as defined by the Hedgerows Regulations 1997, by noting the number and type of native woody species present (as listed on Schedule 3 of the Regulations), and recording the presence of relevant hedgerow features, such as ditches, banks, standard trees, lack of gaps, parallel hedgerows and connections with other hedgerows/woodlands/ponds.

1.9 Throughout the habitat surveys, the potential for the site to support protected and/or notable species, such as reptiles, was also assessed. The site was also searched for evidence [redacted] concurrently with the habitat surveys.

Reptile survey

1.10 During the initial habitat survey, the site was assessed to have the potential to support common, but partially protected reptile species. As such, in order to confirm the presence or likely absence of reptiles, a standardised survey was undertaken based on the methodology set out within the 1999 Froglife guidance[4]. This involved placing out 78 pieces of artificial refugia in the form of sheets of corrugated bitumen approximately 50 x 100cm in size, around the site on 23rd March 2022 (see Drawing 0054-1109-1 for the location of the refugia).

1.11 Following a short 'bedding in' period, the site was revisited on eight occasions between 12th April and 9th May 2022 so that the refugia could be checked for reptiles. Any reptiles seen were identified to species level, allocated to an age class and sexed where possible. Checks of the refugia were carried out during periods of favourable weather when reptiles could

2 JNCC, (2010), *Handbook for Phase 1 habitat survey - a technique for environmental audit*

3 BRIG (ed. Ant Maddock) (2008). *"UK Biodiversity Action Plan Priority Habitat Descriptions"*

4 Froglife (1999) *Reptile survey: an introduction to planning, conducting and interpreting surveys for snakes and lizard conservation.* Froglife Advice Sheet 10. Froglife, Halesworth.

reasonably be expected to be active, i.e. warm days with a temperature above 9°C and with an absence of heavy or continuous rain.

Bats – static detector survey

1.12 As the site lacks any built structures, a survey to assess the use of the site by bats and by which species was carried out. Given the relatively small size of the site and that it has a simple configuration comprising two fields defined by boundary vegetation, is it reasonable to assume that there is unlikely to be a material difference in bat activity in one area compared to another. As such, it was decided to employ two static bat detectors for the survey, as a night-time bat walkover survey would be unlikely to add significantly to this data set or the assessment of the value of the site to bats more generally. Whilst this approach means that much of the spatial data regarding bat activity within the site would not be collected, analysis of data from a night-time bat walkover survey beyond species identification is now discouraged by the survey guidance, in any event.

1.13 The site was assessed during the initial habitat survey as having low suitability habitat for bats and prevailing survey guidance[5] recommends that for such habitat, surveys covering spring, summer and autumn should be carried out. Two Anabat express detectors were deployed on the site for each survey period (see Drawing 0054-1109-4 for the location of the detectors). The detectors were set to record from 30 minutes before sunset until 30 minutes after sunrise the following morning, each night it was in place. For each deployment, the detectors were in place for a minimum of five nights during which bats could reasonably be expected to be active.

Dormouse survey

1.14 As the site was assessed to have the potential to support hazel dormouse *Muscardinus avellanarius*, a detailed survey to confirm the presence or likely absence of this species was carried out in 2022. The methodology for the survey was based on the guidelines set out in the Dormouse Conservation Handbook[6] and involved 50 dormouse nest tubes and two nest boxes being installed in suitable habitat on 19th April 2022 (see Drawing 0054-1109-2 for the location of the tubes and nest boxes). The equipment was then checked for evidence of dormouse on 30th May, 21st July, 31st August and 6th October 2022.

1.15 The dormouse survey was carried out by Geoff Moxon, who holds a Natural England dormouse survey licence ref: 2016-27151-SCI-SCI.

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5 Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition)*. The Bat Conservation Trust, London.

6 Bright, Morris & Mitchell Jones (2006). *Dormouse Conservation Handbook, 2nd edn.* English Nature Publications.

Great crested newt presence/absence survey

1.16 There are three ponds to the east of the site (see Drawing 0054-1109-3) and the presence or likely absence of great crested newts *Triturus cristatus* in each pond was investigated using the eDNA sampling technique. This involves a water sample being collected from each pond and sent to an approved laboratory (Cellmark) where it is analysed for great crested newt DNA using the qPCR method. Natural England accept as confirmation of the presence or absence of this species the result from a water sample collected between mid-April and the end of June. In this instance the samples were collected on 12th April 2022.

2.0 RESULTS – DESK STUDY

Designations

2.1 The desk study confirms that no part of the site or land immediately adjacent to it is the subject of a statutory or non-statutory nature conservation designation, and there are no statutory designations within the 2km search radius. The nearest international designation is the Arun Valley Special Protection Area (SPA), Special Area of Conservation (SAC) and Ramsar site. This is located greater than 15km west of the site.

2.2 There are two non-statutory Local Wildlife Sites (LWS) designations within 2km from the site, both of which are a registered common. The closest is Henfield Common, which is c.150m to the south of the site, and contains a mosaic of neutral and acid grassland, species rich rush pasture, marshy grassland, reedbed and woodland. Broadmere Common, which is c.675m to the south, is a mosaic of poor fen, willow carr and deciduous woodland with scattered ephemeral and permanent ponds.

Protected and notable species

2.3 None of the protected and notable species recorded provided by SxBRC are confirmed as being located within the site itself. Two potentially notable species for which records are provided close to the site are: stag beetle *Lucanus cervus* and brown hairstreak *Thecla betulae*. The former prefers oak woodlands, but can be found in gardens, hedgerows and parks where there are old trees and rotting wood that the larvae live in and feed on. There is no woodland within the site, but habitat for this species could be provided by the larger oak trees, all of which will be retained. Similarly, brown hairstreak adults feed on honeydew from aphids, while caterpillars feed exclusively on blackthorn. The site contains very little blackthorn and this species is unlikely to be significantly impacted as a result if, indeed, it is present within the site. A local resident also reports seeing grass snakes on the site.

2.4 Other potentially relevant records located outwith the site in the wider search area include: slow worm *Anguis fragilis*, grass snake *Natrix helvetica*, common lizard *Zootoca vivipara*, common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *P. pygmaeus*, and several species of *Myotis* bat.

3.0 RESULTS - HABITAT SURVEY

3.1 The following habitats were recorded on the site.

- Modified grassland
- Hedge
- Bramble scrub
- Individual tree
- Developed land, sealed surface

3.2 Each habitat is mapped on Drawing 0054-1109-4 and described in more detail below, with reference to the dominant or more notable species identified. A list of higher plants recorded on the site is included at Appendix 1.

Modified grassland

3.3 The majority of the site contains modified grassland, which appears to have been largely unmanaged since the first survey in February 2022. During the site visit in September 2024 the grassland was noted to have been invaded extensively by self-sown silver birch and sallows, with bramble thickets also now a common feature throughout.

3.4 The sward is characterised by a predominance of grasses with common bent dominant. Other grasses include cock's-foot, Yorkshire fog, red fescue and false oatgrass. The herb component is limited in diversity and comprises a typical mix of common grassland species such as locally abundant creeping buttercup, together with creeping thistle, common fleabane, ragwort, white clover and common mouse-ear. Rare additions to the sward include species such as soft rush, smooth tare, marsh thistle and musk mallow. Also recorded, along the edge of the track, were hairy sedge and lesser stitchwort. Under the canopy of existing trees, the grassland becomes dominated by nettle.

Developed land, sealed surface

3.5 The track that passes through the site from Furners Lane as an asphalt surface. Where this remains in relatively good condition it is devoid of vegetation. Nevertheless, colonisation of cracks and gaps in the surface has occurred by limited range of ruderal and opportunistic species. Species recorded included dandelion, annual meadowgrass, greater plantain and daisy.

Hedge

3.6 An account of the woody species and features within the hedges is given in Table 1 below, together with an assessment of the likely classification of each in accordance with the ecological criteria of the 1997 Hedgerow Regulations.

Table 1 – hedgerow assessment

Hedgerow reference[1]	Woody species present[2]	Average species[3]	Species richness	Features present[4]	Likely classification[5]
H1	Hawthorn (garden privet, sycamore)	1	Species-poor	Bank, no gaps	Not Important
H2	Hawthorn, holly, hazel, elm (cherry laurel, sycamore, sweet bay)	4	Species-poor	No gaps	Not Important – property boundary
H3	Beech	1	Species-poor	No gaps	Not Important – property boundary
H4	Yew	1	Species-poor	No gaps	Not Important – property boundary
H5	Holly, oak, hazel, elder, dogwood, yew, hawthorn (cherry laurel)	7	Species-rich	No gaps, trees, parallel	Important

1 - as denoted on Drawing 0054-1109-4
2 - species in brackets are not included on Schedule 3 and are not therefore included in the assessment of Importance or species-richness
3 - average number of native woody species, as defined by Part II of Schedule 1
4 – defined by Schedule 1
5 – assessment against ecological criteria of the 1997 Hedgerows Regulations

Bramble scrub

3.7 Bramble was a common feature of the site when surveyed in. Other species recorded in this habitat include nettle, false oatgrass and hedge bindweed.

Individual tree

3.8 The site contains several individual trees. The most ecological notable are the two oak trees in the northwestern corner which are assessed to have reached veteran status. Other species recorded include other mature and maturing oak trees, two false acacia, hazel, ash, beech, elm and non-native poplar.

4.0 RESULTS – FAUNA

Reptile survey

4.1 The results of the reptile survey are provided in Table 2 below. Two reptile species were confirmed on the site: slow worm and common lizard. The presence of sub-adult animals would suggest the site is also used for breeding. Reptiles were recorded across the whole site with no clear bias in distribution to a particular area.

Table 2 – reptile survey results

Date	Slow Worm			Common lizard		Time	Temperature	Cloud Cover
	M	F	SA	A	SA			
12/04/2022	1			1		09:45	14	20%
14/04/2022	1		1	3		12:30	16	40%
19/04/2022	1	2		4		16:00	15	60%
20/04/2022				4		13:30	15	10%
26/04/2022	1	3		3	2	18:05	14	90%
27/04/2022		3		4	1	08:45	12	100%
04/05/2022	1	2		3		11:50	13	70%
09/05/2022	2	2	1	18	1	18:00	18	25%

M = male, F = female, SA = sub-adult

Bats – static detector survey

4.2 A summary of the results of the 2022 bat survey is provided in Table 3 below, with nightly results included at Appendix 2. The location of the detectors within the site is shown on Drawing 0054-1109-4. Each 'registration' equates to a sound file that is up to 15 seconds in length and may contain several individual bat 'calls'. Note that a survey ending e.g. 7th May, would include calls recorded between midnight and sunrise on the 8th.

4.3 Registrations listed as *Myotis* and *Plecotus* are from bats within these genera, but which it has not been possible to confidently identify to species level. Similarly, registrations listed under NSL are 'big bats' from the genera *Nyctalus* or *Eptesicus*.

Table 3 – total bat registrations

	Spring 2022				Summer 2022				Autumn 2022			
	North		South		North		South		North		South	
Common pipistrelle	13	6.22%	3	2.05%	52	35.62%	308	72.30%	21	42.00%	10	50.00%
Common/soprano pipistrelle	1	0.48%	3	2.05%			19	4.46%	5	10.00%		
Soprano pipistrelle	24	11.48%	9	6.16%	31	21.23%	48	11.27%	8	16.00%	6	30.00%
Myotis species	23	11.00%	5	3.42%	1	0.68%	19	4.46%	10	20.00%	3	15.00%
Noctule	50	23.92%	2	1.37%			13	3.05%				
NSL	84	40.19%	7	4.79%	57	39.04%	16	3.76%				
Plecotus species	11	5.26%	117	80.14%	5	3.42%	3	0.70%	4	8.00%	1	5.00%
Barbastelle									1	2.00%		
Species not identified	3	1.44%							1	2.00%		
Total	**209**		**146**		**146**		**426**		**50**		**20**	

Dormouse survey

4.4 The detailed survey of the site for dormouse did not find any evidence of these species. On this basis it can be concluded the site is unlikely to support dormouse.

Great crested newt

4.5 The analysis of water samples collected from the three off-site ponds was negative, indicating that the ponds are unlikely to support great crested newts. The analytical reports for each pond are included at Appendix 3.

Results – other fauna

4.6 [redacted]

5.0 IMPACT ASSESSMENT AND MITIGATION

Methodology

5.1 Ecological Impact Assessment is the process of identifying, quantifying and evaluating potential effects of development-related or other proposed actions on habitats, species and ecosystems. The point of reference for this process when evaluating the site has been the Chartered Institute for Ecological and Environmental Management's guidelines for EcIA[7], with expert judgment used as required during this process. The findings of the assessment are intended to assist the competent authority in understanding the ecological effects arising from the proposal when determining an application for consent.

Designated sites

Impact assessment

5.2 The desk study confirms that no part of the site or the land immediately adjacent to it is the subject of a statutory or non-statutory nature conservation designation, and there are no statutory designations within the 2km search radius. As such, there is assessed to be no scope for the proposed development to have a direct impact on a nature conservation designation.

5.3 The nearest international designation is the Arun Valley SPA, SAC and Ramsar site. This is located greater than 15km west of the site, well beyond a distance whereby there is likely to be any significant recreational use generated by the proposed development. Managing recreational use of the site is also not identified an as issue requiring action in Natural England's Site Improvement Plan for the designated area indicating that this is not a significant factor in maintaining its interest features.

5.4 The two LWS within 2km of the site are both identified as commons and are readily accessed by the public. It is reasonable to conclude, therefore, that use of either area by residents of the proposed, relatively small development, is unlikely to significantly increase the impact current use may be having.

Habitats

Impact assessment

5.5 Four existing oak trees, VT1, VT12, T37 and T38 are protected by a confirmed Tree Preservation Orders (TPO), and VT1 and VT12 are assessed to meet the criteria for status as

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

veteran trees. Veteran trees are identified by the government as an irreplaceable habitat and are afforded a high level of policy protection in the NPPF. The ecological value of these four trees is therefore assessed to be significant at the local e.g. parish level, as a result. All four trees will be retained.

5.6 In addition, hedge H5 is considered likely to meet the criteria for designations as an 'Important' hedgerow in accordance with the Hedgerows Regulation 1997 based on its diversity and features present. This, and H2, H3 and H4 are also assessed to be an HPI on the basis that each contains greater than 80% native species. The presence and extent of an impact on these hedgerows is a material consideration for the local planning authority when determining the planning application. In this instance all the hedgerows will be retained. The only direct impact on a hedge is the creation of the access into the site from Furners Lane, which requires the removal of a section of hedge H1. This comprises predominately garden privet and is not therefore an HPI or Important hedgerow and this impact is therefore assessed to not be significant.

5.7 All of the other plant species and assemblages of plant species found within the site are common and widespread throughout much of lowland Britain and are typical of a site of this type. None of the other habitats is afforded legal and all are well represented in the wider area. On this basis the habitats are assessed to have intrinsic value at the level of the site only and the loss of any of these habitats is unlikely to have an impact that is of significance at above the site level.

Reptiles

Impact assessment

5.8 Two species of reptile were recorded during the survey, and there is anecdotal evidence of grass snake also being present locally. All three species are a SPI. The maximum count of 18 adult common lizard and four slow worms indicates that the site supports 'good' and 'low' populations of these species, respectively.

5.9 All reptile species are afforded (as a minimum) protection from killing and injury under the Wildlife and Countryside Act 1981 (as amended) and reasonable effort needs to be made to ensure the construction of the proposed development does not result in a such an offence occurring. Notwithstanding this, these species remain relatively common and widespread in southern Britain, and the impact of the development on reptiles is not considered be significant above the site level as a result.

Mitigation

5.10 Whilst approximately half of the site will be retained as open space, there is assessed to be insufficient capacity in the retained grassland for it support its current population and those

from the development area. As such, an off-site receptor will be required to which reptiles from the development area can be relocated via a translocation. The need to relocate the reptiles off-site is considered to be a significant impact at the site level.

5.11 The translocation of reptiles is standard industry practice and is a 'tired and tested' method to protect reptiles affected by development. Therefore, there can be confidence in a high likelihood of success, and it is suggested that details of the proposed receptor and translocation process can therefore be secured by a suitably worded condition.

Bats – static detector survey

Impact assessment

5.12 Three species of bat were detected within the site during the remote detector survey, together with one registration of a barbastelle bat and also bats from the *Myotis* and *Plecotus* genera and also 'big bats' from the *Nyctalus* or *Eptesicus* genera. Of the species confirmed, soprano pipistrelle, noctule and barbastelle are a SPI. Overall, the site is assessed as being of value at up to the local e.g. parish, level for bats due to the mix of species recorded. It is unlikely to be of greater value on the basis that the habitats are assessed as being of low suitability for bat foraging and also that the site is located in southern Britian, where most resident species can, in any event, be found. With approximately half of the site remaining undeveloped, the impact of the proposal is assessed as likely to be significant at the site level only.

Mitigation

5.13 In order to minimise the impact of the proposed development on bat activity, it would be recommended to design a lighting scheme for the site that is sensitive to bats so that they can continue to commute along the boundary vegetation and access the retained grassland habitats, post-development.

5.14 There is no legal requirement to provide lighting within a development and so in accordance with the ecological mitigation hierarchy, the first option should be to avoid entirely the installation of artificial lighting. If the installation of external lighting is unavoidable, the lighting scheme, as demonstrated through the production of vertical and horizontal lux contour maps, should show that it will not generate greater than 0.5lux at the base of any of the site boundaries or existing tall (>2m), linear vegetation. Furthermore, bollard lighting should be avoided if possible, and columns and/or solar waymarkers (with a 'bat cap') used in preference. Fixtures should have no or a very low UV component and produce light with a low colour temperature of 2700k. In addition, external lighting on new buildings should also be sensor controlled (e.g., passive infrared) so that it is only illuminated when required.

5.15 Case studies in Warwickshire have shown that red light is preferable when minimising the impact on bats and is readily accepted by residents once they understand the reason for this decision. The potential use of this should therefore be investigated at the detail design stage.

Other fauna

5.16 No other protected or notable fauna or evidence of such fauna, has been recorded. In particular, no evidence of [redacted] was found and the surveys for dormouse and great crested newts both indicate that these are unlikely to be present on the site.

6.0 BIODIVERSITY NET GAIN ASSESSMENT

6.1 In order assess the probable impact of the proposal on the measured biodiversity value of the site, a quantitative assessment of the likely change has been carried out using the Statutory Biodiversity Metric Calculation Tool, published by the Government on 23.7.24.

Baseline assessment

6.2 The pre-development habitat map of the site following the UKHabs approach is provided on Drawing 0054-1109-4. Condition assessments for habitats that require it, are provided at Appendix 4. The condition of bramble scrub is locked in the metric.

6.3 The completed Metric is provided together with this report. This indicates that the site has **a pre-development baseline habitat value of 17.99 habitat units (HaU) and a hedge baseline value of 1.55 hedge units (HeU).**

Biodiversity net gain

6.4 It is assumed that the planning consent for the proposal, if granted, will be subject to the statutory Biodiversity Condition. As such, details of how the proposal will achieve the mandatory 10% net gain in biodiversity required by the Environment Act 2021, will be agreed via the approval of a Biodiversity Gain Plan submitted pursuant to this condition.

6.5 Nevertheless, in order to quantify the likely quantum of enhancement required to achieve 10% net gain, an assessment of possible post-development biodiversity interventions has also been completed based on the proposed landscape strategy prepared by Landscape Perspective. These are incorporated in the completed metric and primarily include enhancing the retained grassland to good condition 'other, neutral grassland'. In addition, 57 individual trees are also proposed to planted and 244m of beech hedge is to be created around the plots.

6.6 Based on these parameters, the Metric indicates that the site could achieve a post-development biodiversity value of 20.70 HaU and 1.98 HeU. **This is equivalent to a 15.03% net gain in the biodiversity value of the habitats, and a 28.06% net gain in the biodiversity value of the hedges.**

7.0 ADDITIONAL RECOMMENDATIONS

Nesting birds

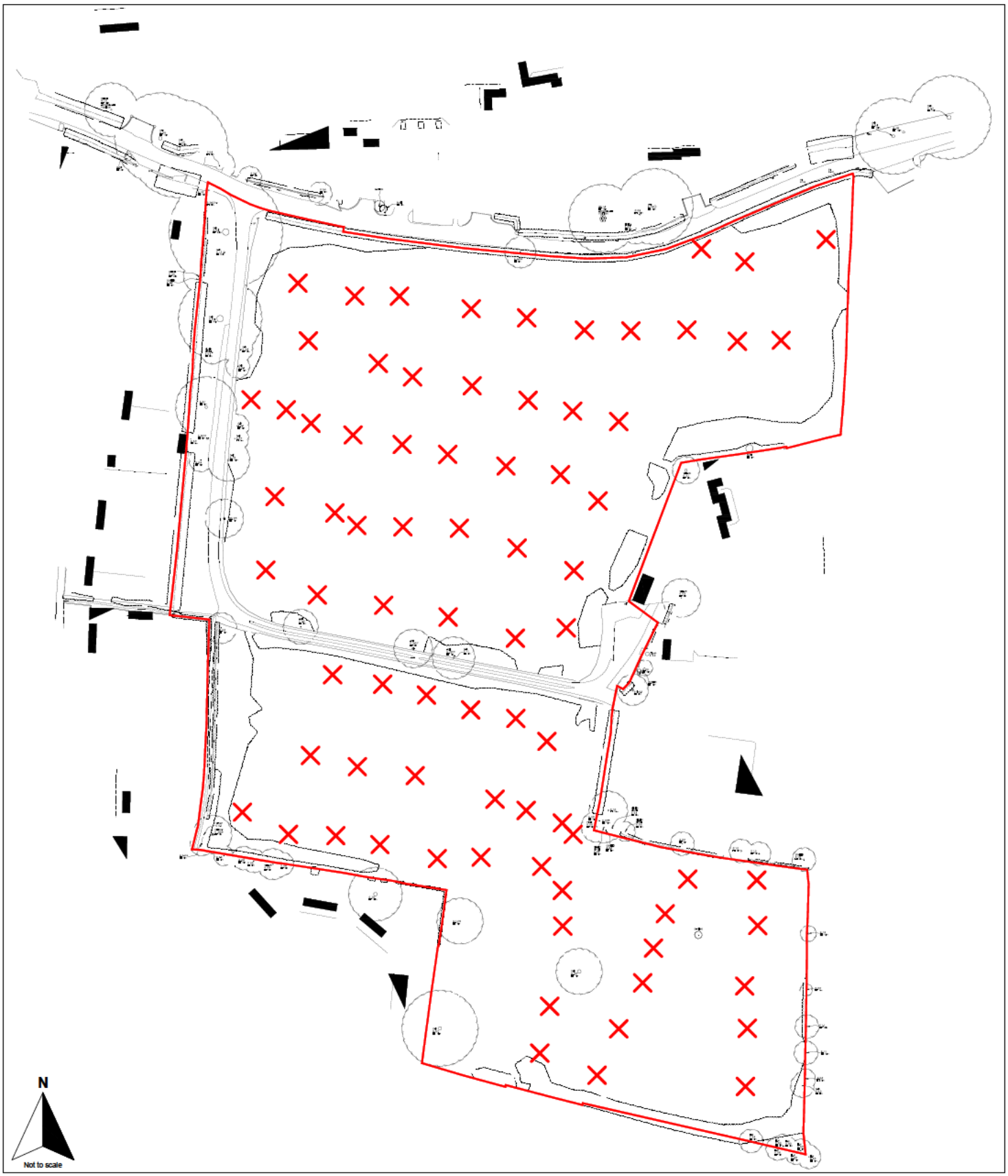
7.1 In order to avoid legislative constraints relating to nesting birds, it is recommended to carry out any clearance works, such as vegetation removal and soil stripping, outside the peak bird nesting season, which typically runs from mid-February to August inclusive, although some bird species will nest all year-round if conditions are suitable. If the work is programmed for during the peak nesting period, a prior survey by a suitably experienced ecologist is recommended to identify if any nesting constraints are present at that time. If an active nest is identified within an area to be affected by any works, it is likely that it would have to remain in situ and unaffected until such time as a re-survey confirmed that it was no longer in active use, at which point it is likely that it could be removed.

Enhancement

7.2 Although not required for legislation compliance, the NPPF[8] at paragraph 180(d) states '*opportunities to improve biodiversity in and around developments should be integrated as part of their design*'. The following enhancements are therefore recommended to meet this policy requirement:

- Install 5 bird boxes on the new building or retained trees within the development.
- Install 5 bat boxes on the new building or retained trees within the development.
- Install 2 insect boxes/habitats within the development.
- Each enclosed garden should include at least one gap at the base, 13x13cm in diameter, to allow hedgehogs to permeate the development.

[8] Ministry of Housing, Communities and Local Government (last revision September 2023). National Planning Policy Framework.



Site boundary

Reptile refugia

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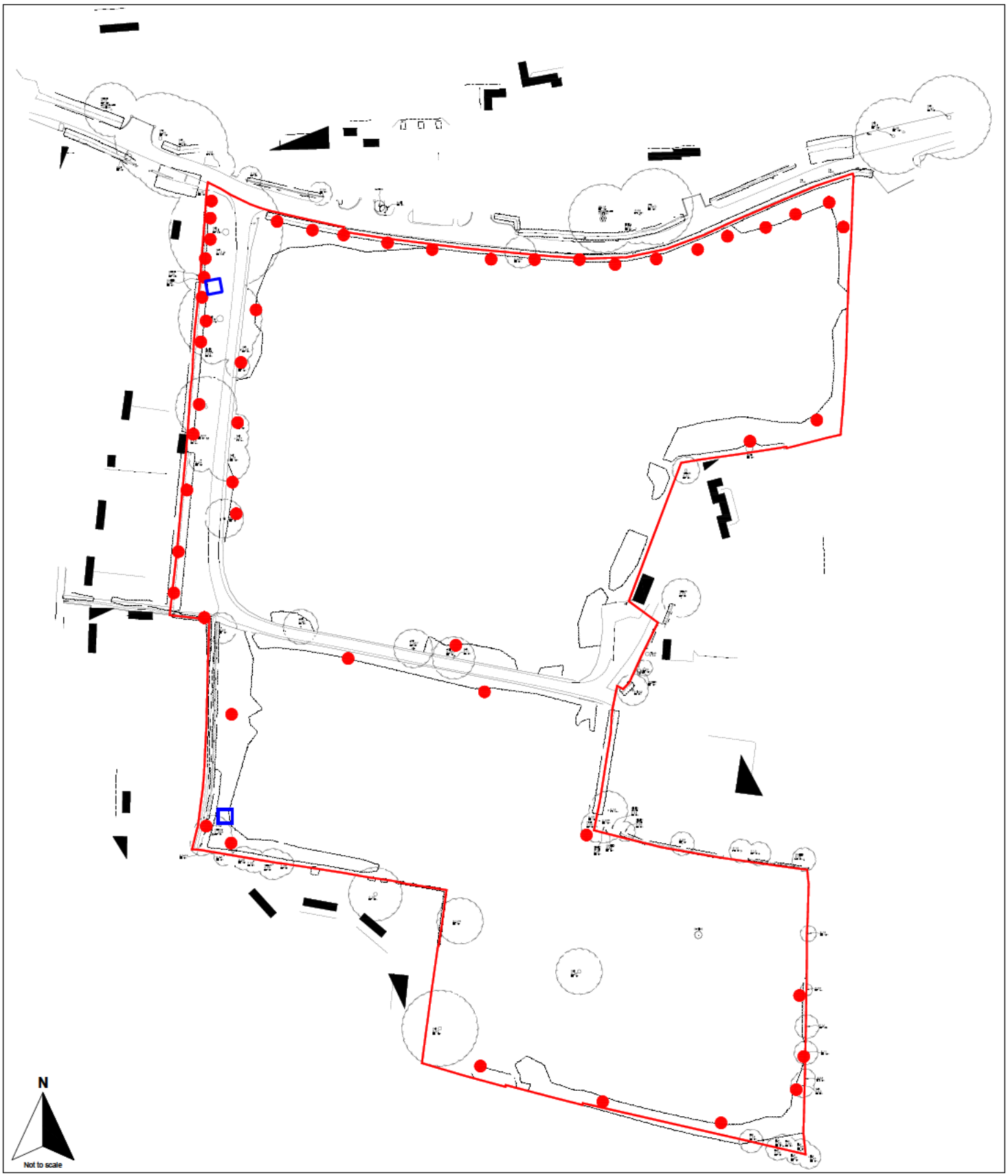
SWE

Project - Land at Furners Lane, Henfield

Client - Elivia Homes

Title - Reptile survey

Date - September 24 | Drawing - 0054-1109-1 | Rev - A



Site boundary

Nest tube

Nest box

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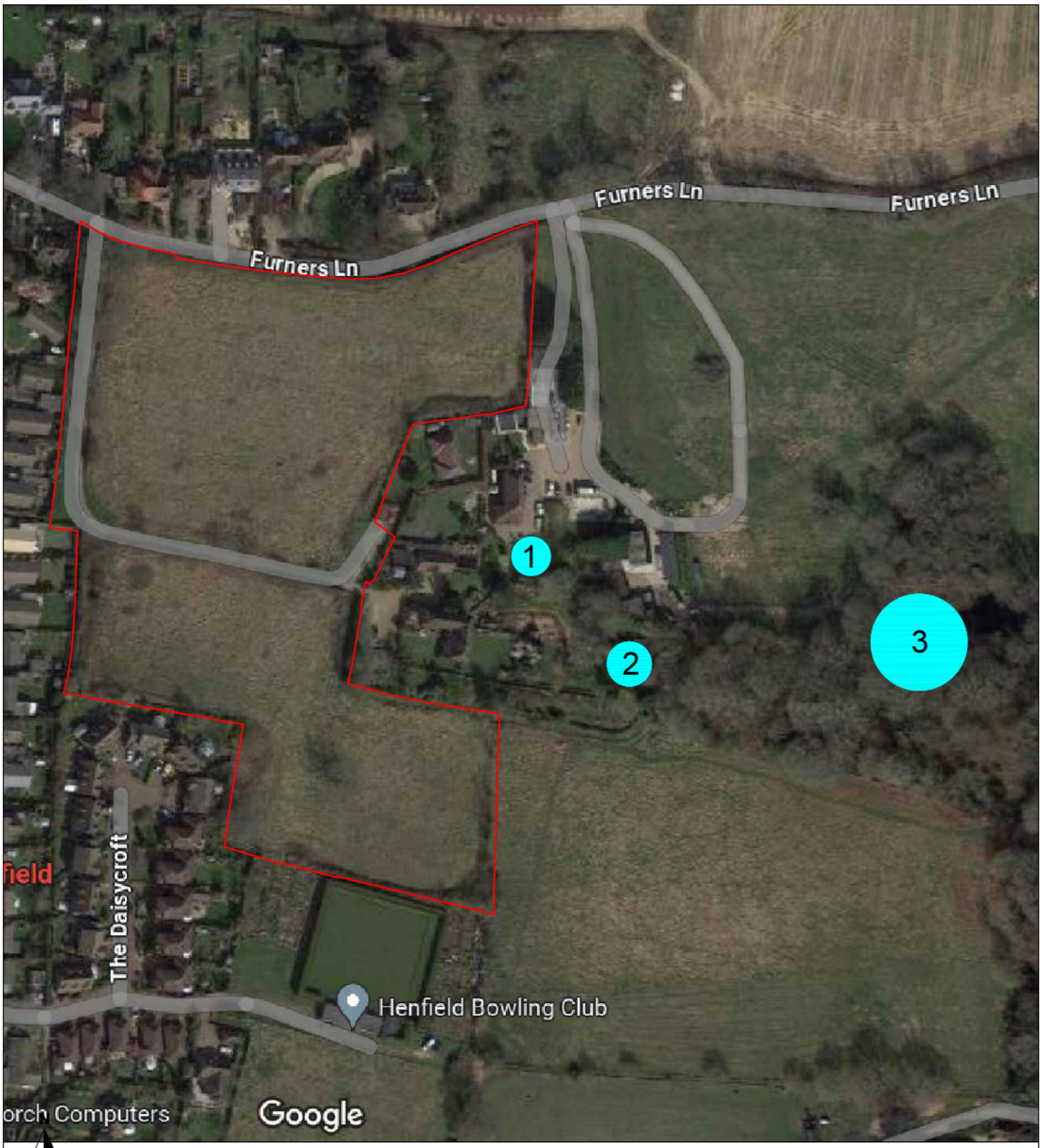
SWE

Project - Land at Furners Lane, Henfield

Client - Elivia Homes

Title - Dormouse survey

Date - September 24 | Drawing - 0054-1109-3 | Rev - A



Site boundary

Off-site pond

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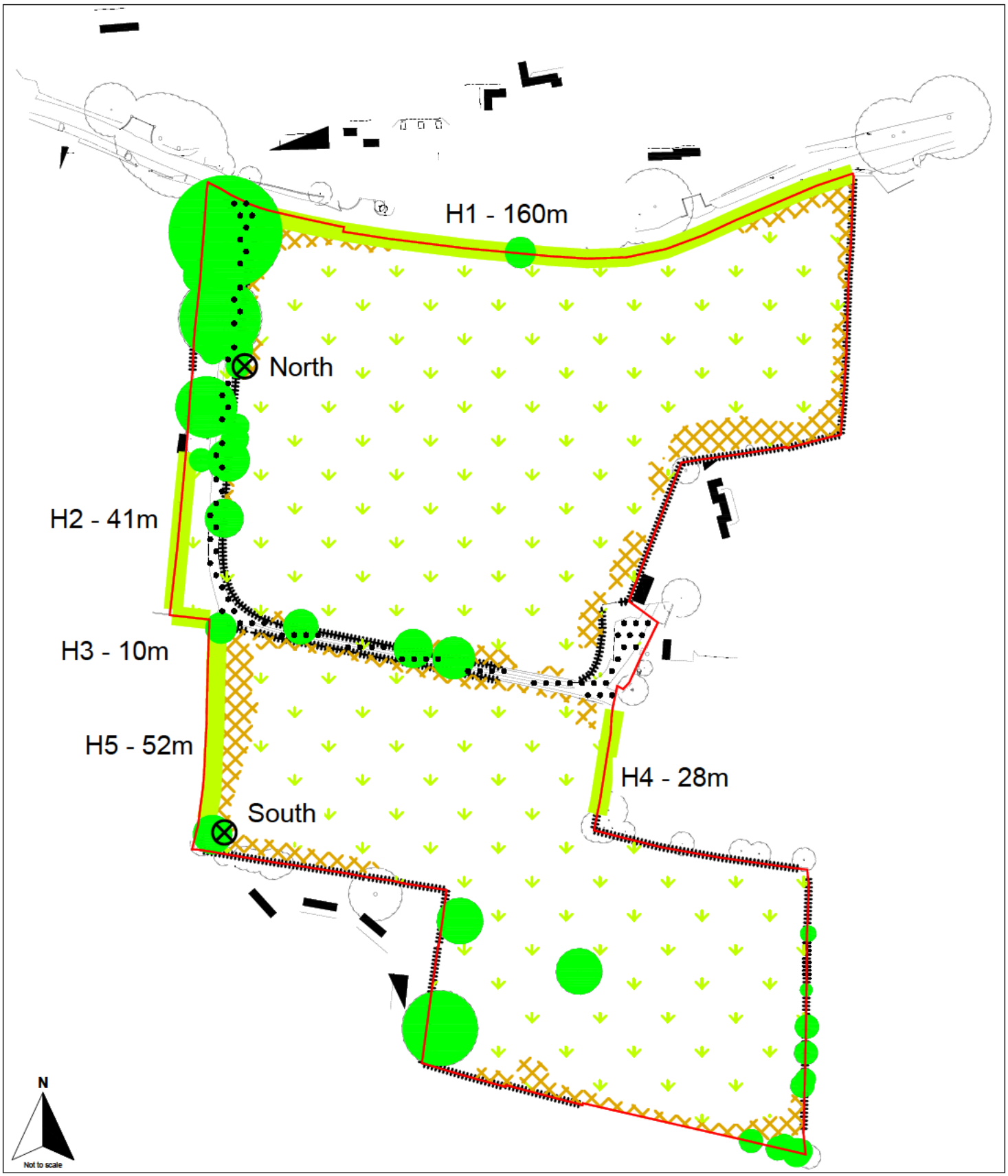
SWE

Project - Land at Furners Lane, Henfield

Client - Elivia Homes

Title - Ponds surveyed for great created newts

Date - September 24 | Drawing - 0054-1109-3 | Rev - A



Site boundary

Modified grassland

Hedge

Bramble scrub

Individual tree

Developed land, sealed surface

Bat detector

Fence

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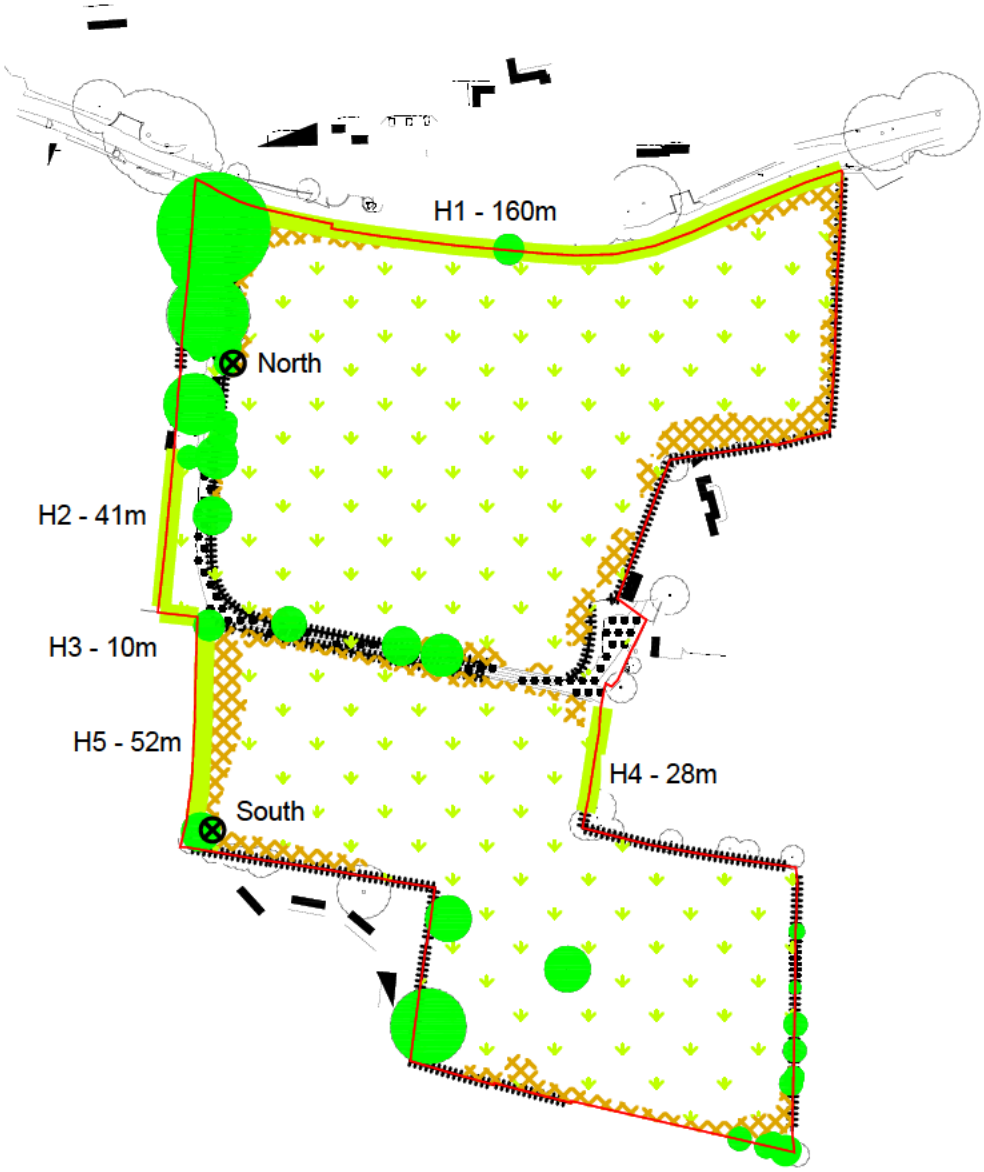
Project - Land at Furners Lane, Henfield

Client - Elivia Homes

Title - Habitat map

Date - September 24 | Drawing - 0054-1109-4 | Rev -



N

Not to scale

0m 40m 80m

1:20000 at A4

- Site boundary
- Modified grassland
- Hedge
- Bramble scrub
- Individual tree
- Developed land, sealed surface
- Bat detector
- Fence

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Project - Land at Furners Lane, Henfield
Client - Elivia Homes
Title - Habitat map - scaled
Date - September 24 | Drawing - 0054-2009-5 | Rev -

APPENDIX 1

Common name	Scientific name
Ash	*Fraxinus excelsior*
Beech	*Fagus sylvatica*
Beech	*Fagus sylvatica*
Bramble	*Rubus fruticosus agg.*
Cherry laurel	*Prunus laurocerasus*
Cocks foot	*Dactylis glomerata*
Common bent	*Agrostis capillaris*
Common fleabane	*Pulicaria dysenterica*
Common mouse-ear	*Cerastium fontanum*
Common nettle	*Urtica dioica*
Creeping buttercup	*Ranunculus repens*
Creeping thistle	*Cirsium arvense*
Daisy	*Bellis perennis*
Dandelion	*Taraxacum officinale agg.*
Dogwood	*Cornus sanguinea*
Elder	*Sambucus nigra*
English elm	*Ulmus procera*
False acacia	*Robinia pseudoacacia*
False oat-grass	*Arrhenatherum elatius*
Garden privet	*Ligustrum ovalifolium*
Greater plantain	*Plantago major*
Hairy sedge	*Carex hirta*
Hawthorn	*Crataegus monogyna*
Hazel	*Corylus avellana*
Hedge bindweed	*Calystegia sepium*
Holly	*Ilex aquifolium*
Lesser stitchwort	*Stellaria graminea*
Marsh thistle	*Cirsium palustre*
Musk-mallow	*Malva moschata*
Pedunculate oak	*Quercus robur*
Poplar	*Populus ps.*
Ragwort	*Senecio jacobaea*
Red fescue	*Festuca rubra*
Sallows	*Salix sp.*
Silver birch	*Betula pendula*
Smooth tare	*Vicia tetrasperma*

Soft rush	*Juncus effusus*
Sweet bay	*Laurus nobilis*
Sycamore	*Acer pseudoplatanus*
White clover	*Trifolium repens*
Yew	*Taxus baccata*
Yorkshire fog	*Holcus lanatus*

Appendix 2

	Spring 2022									
	North					South				
	04/05	05/05	06/05	07/05	08/05	04/05	05/05	06/05	07/05	08/05
Common pipistrelle	3	1	5	2	2	0	1	1	1	0
Common/ soprano pipistrelle	0	0	0	1	0	0	1	1	0	1
Soprano pipistrelle	4	6	9	5	0	2	4	2	1	0
Myotis species	11	1	0	7	4	1	2	1	0	1
Noctule	3	2	22	10	13	1	0	1	0	0
NSL	0	12	54	17	1	1	5	1	0	0
Plecotus species	4	1	4	2	0	5	20	71	12	9
Barbastelle	0	0	0	0	0	0	0	0	0	0
Species not identified	0	0	3	0	0	0	0	0	0	0
Total number of files	25	23	97	44	20	10	33	78	14	11

	Summer 2022									
	North					South				
	09/08	10/08	11/08	12/08	13/08	09/08	10/08	11/08	12/08	13/08
Common pipistrelle	12	14	11	11	4	8	71	49	104	76
Common/ soprano pipistrelle	0	0	0	0	0	1	1	7	4	6
Soprano pipistrelle	7	15	5	1	3	9	8	11	11	9
Myotis species	0	0	1	0	0	4	5	7	1	2
Noctule	0	0	0	0	0	0	5	4	4	0
NSL	12	17	19	4	5	0	8	5	1	2
Plecotus species	0	1	0	2	2	0	1	1	0	1
Barbastelle	0	0	0	0	0	0	0	0	0	0
Species not identified	0	0	0	0	0	0	0	0	0	0
Total number of files	31	47	36	18	14	22	99	84	125	96

	Autumn 2022									
	North					South				
	16/09	17/09	18/09	19/09	20/09	16/09	17/09	18/09	19/09	20/09
Common pipistrelle	6	3	3	7	2	1	2	1	4	2
Common/ soprano pipistrelle	1	1	1	1	1	0	0	0	0	0
Soprano pipistrelle	0	0	0	6	2	0	3	0	1	2
Myotis species	0	1	4	3	2	0	0	0	2	1
Noctule	0	0	0	0	0	0	0	0	0	0
NSL	0	0	0	0	0	0	0	0	0	0
Plecotus species	1	0	1	1	1	0	0	0	0	1
Barbastelle	0	1	0	0	0	0	0	0	0	0
Species not identified	0	0	1	0	0	0	0	0	0	0
Total number of files	8	6	10	18	8	1	5	1	7	6

Appendix 3

PRIVATE & CONFIDENTIAL

eDNA Technical Report

Mr. Samuel Watson
BioScan UK Limited
Bioscan (UK) Ltd
The Old Parlour
Little Balldon Farm
Oxford

OX44 9PU

Report Reference	R0000127
Report Date	14 Apr 2022
Reported By	cbutton

Site Name	Furners Lane						
Site Location	Henfield						
OS Reference	Pond 1						
Barcode	**Received Date**	**Sampled Date**	**Sample Check**	**Degradation Check**	**Inhibition Check**	**Result**	**Positve Replicates**
GCN001125	12/04/2022	12/04/2022	PASS	PASS	PASS	NEGATIVE	0 out of 12

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PRIVATE & CONFIDENTIAL

eDNA Technical Report

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Report Reference	R0000125
Report Date	14 Apr 2022
Reported By	cbutton

Site Name	Furners Lane						
Site Location	Henfield						
OS Reference	Pond 2						
Barcode	**Received Date**	**Sampled Date**	**Sample Check**	**Degradation Check**	**Inhibition Check**	**Result**	**Positve Replicates**
GCN001113	12/04/2022	12/04/2022	PASS	PASS	PASS	NEGATIVE	0 out of 12

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eDNA Technical Report

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OX44 9PU

Report Reference	R0000126
Report Date	14 Apr 2022
Reported By	cbutton

Site Name	Furners Lane						
Site Location	Henfield						
OS Reference	Pond 3						
Barcode	**Received Date**	**Sampled Date**	**Sample Check**	**Degradation Check**	**Inhibition Check**	**Result**	**Positve Replicates**
GCN001168	12/04/2022	12/04/2022	PASS	PASS	PASS	NEGATIVE	0 out of 12

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eDNA Technical Report

SUMMARY

The water samples listed in the tables above were submitted to Cellmark for environmental DNA (eDNA) testing for the presence of Great Crested Newt (GCN; *Triturus cristatus*) DNA. The laboratory testing was carried out in compliance with the guidelines described in WC1067: Analytical and methodological development for improved surveillance of The Great Crested Newt (version 1.1)

INTERPRETATION OF THE RESULTS

Barcode	Each kit is given a unique sample barcode. A kit and the six sample tubes contained within it are labelled with the same sample barcode. This allows Cellmark to track where each kit has been sent and to track the samples through the laboratory once they have been returned.
Site Name	The name of the sampling site.
OS Reference	Ordnance Survey grid reference: the location of the pond.
Sample Check	Upon receipt in the laboratory, the 6 sample tubes are scored for sample volume, leakage, damage and for the presence of sediment, algae and other debris within the sample tubes. They are scored as 'PASS' or 'FAIL'. Samples that fail at this stage may not be suitable for further processing.
Degradation Check	A control marker is spiked into the sample tubes during the kit manufacturing process. This marker is analysed for degradation and reported as 'DEGRADED' or 'PASS'.
Inhibition Check	Some substances (inhibitors) can cause the GCN assay to give a negative result despite the presence of GCN DNA. An assay is performed to determine whether inhibitors are present in the eDNA extract. If inhibition is detected, steps are taken to mitigate the effects on the GCN detection assay. The degradation assay is reported as 'INHIBITED' or 'PASS'.
Result	Results are reported as 'POSITIVE', 'NEGATIVE' or 'INCONCLUSIVE'. A positive result indicates that there is evidence that Great Crested Newts are present or have recently been present in the pond. If no GCN DNA is detected, a negative result is reported. The results are deemed inconclusive if we do not detect the presence of GCN DNA and there is an indication that something in the sample is interfering with the analysis (inhibition or degradation).
Positive Replicates	A single eDNA extract is produced for each pond. The extract is then analysed to detect the presence of GCN DNA. A total of 12 replicates of this analysis is performed per eDNA extract. If at least 1 of the replicates is positive for the presence of GCN DNA, the pond is declared positive for the presence of Great Crested Newts.

METHODOLOGY

Upon arrival in the laboratory, the 6 sample tubes are checked for sample volume, leakage and any other damage. The samples are also inspected for macroscopic debris. Based on the outcome of this inspection, the decision is made as to whether the sample is suitable for further processing. Samples that have passed this inspection step are centrifuged. The resulting pellets (containing the eDNA) from each tube are then combined. The eDNA is then isolated (extracted) from the combined pellet.

Inhibitors, more specifically PCR inhibitors, are substances in the eDNA sample which may be co-isolated with the DNA and which interfere with eDNA detection assays. All eDNA extracts are tested for the presence of inhibitors. When a sample has been shown to be inhibited and the results of the GCN detection assay are negative, we cannot be sure whether the sample is truly negative for GCN DNA or that the inhibitors have prevented the GCN assay from working correctly. In this scenario, the result is reported as inconclusive.

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eDNA Technical Report

The ability to detect a control marker that has been spiked into the sample tubes during the kit manufacturing process is also tested. If this marker cannot be detected, it suggests that that DNA in the sample has been degraded. Some possible causes of degradation can be the conditions under which the sample has been stored (eg exposure to high temperatures or UV from excessive sunlight) or contamination with substances that destroy DNA. If the control DNA is not detected but the GCN detection assay is positive for GCN, then the sample is reported as positive for GCN DNA. However, if neither the control DNA nor GCN DNA is detected, the sample is reported as inconclusive because we cannot know whether there was any GCN DNA present in the sample but it was degraded prior to analysis.

The GCN detection assay targets a portion of the GCN mitochondrial DNA. This assay is detailed in WC1067 Analytical and Methodological Development for Improved Surveillance of The Great Crested Newt (version 1.1). This assay specifically detects GCN DNA. If GCN DNA is detected in at least 1 of the 12 replicate GCN detection assays, the sample is reported as positive for the presence of GCN. A technique called quantative PCR (qPCR) is used in the inhibition, degradation and GCN detection assays to detect specific regions of DNA. Positive and negative controls are used in each of the assays and these have to give the expected results in order for the sample to be declared positive or negative for GCN DNA.

Cellmark participates in the FERA proficiency testing scheme and achieved 100% in the 2021 test. Driven by quality, Cellmark has held international ISO quality certification since 1990. Cellmark provides a range of laboratory testing services accredited to ISO 17025 and although delivered to the same exacting quality standards, Cellmark's eDNA service is not yet included on the scope of its ISO 17025 accreditation. Cellmark is certified to ISO 9001, ISO 14001 and to ISO 27001.

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Appendix 4

Modified grassland condition assessment

Condition Assessment Criteria		Criterion passed	Notes
A	There are 6-8 vascular plant species per m^2 present, including at least 2 forbs (these may include those listed in Footnote 1). **Note - this criterion is essential for achieving Moderate or Good condition.**	Yes	
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	Yes	
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble *Rubus fruticosus* agg. may be present).	No	The grassland contains extensive scattered scrub
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	Yes	No significant damage was recorded in the grassland
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens)[2].	No	No bare ground was recorded
F	Cover of bracken *Pteridium aquilinum* is less than 20%.	Yes	Bracken is present but is less than 20% of the area
G	There is an absence of invasive non-native plant species[3] (as listed on Schedule 9 of WCA[4]).	Yes	No such species were recorded in the grassland
		Score	**5 of 7 criteria passed, including essential criterion A = moderate condition**

Hedge condition assessment

Attributes and functional groupings		Criteria - the minimum requirements for 'favourable condition'	Criteria description	H1	H2	H3	H4	H5
A1.	Height	>1.5 m average along length	The average height of woody growth	Yes	Yes	Yes	Yes	Yes
A2.	Width	>1.5 m average along length	The average width of woody growth	Yes	No	No	No	Yes
B1.	Gap - hedge base	Gap between ground and base of canopy <0.5 m for >90% of length	Vertical 'gappiness' of woody growth	Yes	Yes	Yes	Yes	Yes
B2.	Gap - hedge canopy continuity	Gaps make up <10% of total length; and No canopy gaps >5 m	This is the horizontal 'gappiness' of woody growth	Yes	Yes	Yes	Yes	Yes
C1.	Undisturbed ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: · Measured from outer edge of hedgerow; and · Is present on one side of the hedgerow (at least).	This is the level of disturbance (excluding wildlife disturbance) at the base of the hedgerow.	Yes	Yes	No	Yes	Yes
C2.	Nutrient-enriched perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.	The indicator species used are nettles *Urtica* spp., cleavers *Galium aparine* and docks *Rumex* spp.	Yes	No	No	Yes	Yes
D1.	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native plant species	For information on invasive non-native species see the GB Non-Native Secretariat website[7].	Yes	Yes	Yes	Yes	Yes
D2.	Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes.	Yes	Yes	No	Yes	Yes
			Hedgerow category	**Poor – non-native**	**Good**	**Moderate**	**Good**	**Good**

Individual tree condition assessment – trees retained

Tree No*	T3	T9	T10	VT12	T13	T14	T15	T16	T17	T18	T20	T21	T22	T23	T24
The tree is a native species	Y - field maple	Y - oak	Y - beech	Y - oak	Y - oak	Y - oak	Y - hazel	N - acacia	N - acacia	Y - ash	Y - oak	Y - oak	Y - oak	Y - oak	N - pear
The tree canopy is predominantly continuous	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
The tree is mature*	Y	Y	N	Y	N	N	N	Y	N	N	N	N	N	Y	Y
There is little or no evidence of an adverse impact on tree	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Natural ecological niches	N	Y	N	Y	N	N	N	Y	N	N	N	N	N	N	N
Canopy oversailing vegetation	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Score	5 = good	6 = good	4 = moderate	6 = good	4 = moderate	4 = moderate	4 = moderate	5 = good	3 = moderate	4 = moderate	4 = moderate	4 = moderate	4 = moderate	5 = good	4 = moderate
Tree size class*	Small	Large	Small	Very large	Small	Small	Small	Large	Large	Small	Small	Small	Medium	Medium	Small

*based on the information in Arboricultural constraints assessment report prepared by Barrel Tree Consultancy ref: 22054-Constraints-DC, dated 4th May 2022

Tree No*	T37	T38	T39	G35-1	G35-2	G35-3	G35-4	G35-5	G36-1	G36-2	G36-3	G36-4	G36-5	G36-6	G41-1
The tree is a native species	Y - oak	Y - oak	Y - beech	N - poplar	N - poplar	N - poplar	N - poplar	N - poplar	Y - elm	Y - elm	Y - elm	Y - elm	Y - elm	Y - elm	Y - all
The tree canopy is predominantly continuous	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	y
The tree is mature*	Y	Y	Y	N	N	N	N	N	Y	Y	Y	Y	Y	Y	N
There is little or no evidence of an adverse impact on tree	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	y
Natural ecological niches	Y	Y	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y	N
Canopy oversailing vegetation	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	y
Score	6 = good	6 = good	5 = good	3 = moderate	3 = moderate	3 = moderate	3 = moderate	3 = moderate	6 = good	6 = good	6 = good	6 = good	6 = good	6 = good	4 = moderate
Tree size class*	Very large	Very large	Medium	Medium	Medium	Medium	Medium	Medium	Small	Small	Small	Small	Small	Small	Medium

Tree No*	G41-2	G41-3	G41-4	G41-5	G41-6	G41-7
The tree is a native species	Y - all	Y - all	Y - all	Y - all	Y - all	Y - all
The tree canopy is predominantly continuous	y	y	y	y	y	y
The tree is mature*	N	N	N	N	N	N
There is little or no evidence of an adverse impact on tree	y	y	y	y	y	y
Natural ecological niches	N	N	N	N	N	N
Canopy oversailing vegetation	y	y	y	y	y	y
Score	4 = moderate	4 = moderate	4 = moderate	4 = moderate	4 = moderate	4 = moderate
Tree size class*	Medium	Medium	Medium	Medium	Medium	Medium

Individual tree condition assessment – trees identified for removal

Tree No*	T25	T26	T27 - oak	T27 - ash
The tree is a native species	Y - ash	Y - ash	Y - oak	Y - ash
The tree canopy is predominantly continuous	Y	Y	Y	Y
The tree is mature	N	N	N	N
There is little or no evidence of an adverse impact on tree	Y	Y	Y	Y
natural ecological niches	N	N	N	N
Canopy oversailing vegetation	Y	Y	Y	Y
Score	4 = moderate	4 = moderate	4 = moderate	4 = moderate
Tree size class*	Small	Small	Small	Medium

PHOTOS - 2022

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Photos 2024

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