

**Land at Berrywood Lane
Bradley
Basingstoke
Hampshire
SO24 9RY**

Biodiversity Metric Assessment

Ref: R2469/f

October 2021



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1 SUMMARY

- 1.1.1** John Wenman Ecological Consultancy LLP was commissioned by Foxley Tagg Planning Ltd to undertake a Biodiversity Metric Assessment of land at Berrywood lane in Bradley, Hampshire. The survey was commissioned in connection with an outline planning application submitted to Basingstoke and Deane Borough Council seeking consent to redevelop the site for residential use (19/03014/OUT).
- 1.1.2** The report is based on a desktop study of a Phase 1 report completed by Urban Wildlife (October 2019) and a tree report undertaken by Braemar Arboriculture Limited (October 2019). The reports showed that the site comprised semi-improved grassland with a row of scattered trees on the western boundary, and species-poor hedgerows on the northern boundary and eastern boundary. A drainage ditch was present along the hedgerow to the north of the site along Berrywood Lane.
- 1.1.3** The Phase 1 habitat survey showed the site to support a relatively low diversity of commonly occurring and widespread species typical of improved grasslands throughout lowland England and of no special conservation importance. The grassland had in the past been used for intensive agriculture but had been recently managed to re-establish the grassland as wildflower meadow, however in its current condition could not be classed as a species rich-grassland. The tree survey showed that the scattered trees were a mixture of semi-mature and young trees. The trees and hedgerows on the boundaries provided foraging and nesting opportunities for common, widespread bird species and commuting habitat for bats.
- 1.1.4** The proposals will result in the loss of most of the improved grassland of low intrinsic ecological value and will be replaced by areas of native and non-native tree planting, native hedgerow and scrub planting, a pond, introduced shrub planting and amenity grassland. The proposals will increase the structural diversity of the site but would not provide an overall net gain in biodiversity based upon the Biodiversity Metric Calculation Tool (v3) produced by Natural England. In order to achieve a minimum 10% net gain in biodiversity in line with the requirements of the National Planning Policy Framework (NPPF), the proposals will include the creation of an area of at

0.58 hectares of lowland meadow on an area of existing improved grassland on adjacent land under the same ownership.

2 INTRODUCTION

2.1 Background

2.1.1 John Wenman Ecological Consultancy LLP was commissioned by Foxley Tagg Planning Ltd to undertake a Biodiversity Metric Assessment of land at Berrywood lane in Bradley, Hampshire.

2.1.2 The assessment was commissioned in connection with an outline planning application submitted to Basingstoke and Deane Borough Council seeking consent to redevelop the site for residential use (19/03014/OUT). The assessment was commissioned following a request by the Council that a DEFRA Biodiversity Metric should be carried out (for all developments over 0.1ha) to ensure that there is a net gain for biodiversity of 10% or above.

2.2 Site Location and Context

2.2.1 The site is situated to the south of Berrywood Lane in Bradley, Hampshire (OS Grid Reference SU 63557 41487).

2.2.2 The site is on the outskirts of the village of Bradley in a rural setting, with arable fields to the south and residential buildings to the north, east and west bordered by open agricultural land comprising of arable and grazed pastures.

2.3 Report Format

2.3.1 There follows: an overview of the national and local wildlife policy background in Section 3; details of the survey methods in Section 4; and survey findings in Section 5. The appendices present: an existing site plan (**Appendix 1**); a plan of habitats to be retained on site (**Appendix 2**); a plan of new habitats to be created on and off site (**Appendix 3**); and a plan of the whole development site (**Appendix 4**).

3 POLICY BACKGROUND

3.1 National Planning Policy

3.1.1 The ODPM Circular 06/2005 provides guidance on the application of the law relating to planning and nature conservation stating that *'the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.'*

3.1.2 The Natural Environment and Rural Communities (NERC) Act 2006 requires all public bodies, including local authorities, to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'Biodiversity Duty'

3.1.1 The revised National Planning Policy Framework (NPPF), published in February 2019, sets out the Government's planning policies for England and how they should be applied. Section 15 of the NPPF sets out the approach local authorities should adopt to conserve and enhance the natural environment when preparing planning policy and when considering planning applications. Paragraph 175 sets out the principles local authorities should apply when determining planning applications as follows:

175. When determining planning applications, local planning authorities should apply the following principles:

- a) 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;*
- b) 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;*
- c) 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

- d) *development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.*

3.2 Local Planning Policy

3.2.1 The Basingstoke and Deane Borough Local Plan (2011-2029) was adopted in May 2016 and this now forms part of the development plan for the Borough. Policy EM4 within the Local Plan sets out the Council's approach to nature and biodiversity conservation when considering planning applications as follows:

'Policy EM4 – Biodiversity, Geodiversity and Nature Conservation

1. Development proposals will only be permitted if significant harm to biodiversity and/ or geodiversity resulting from a development can be avoided or, if that is not possible, adequately mitigated and where it can be clearly demonstrated that:

- a) There will be no adverse impact on the conservation status of key species; and
- b) There will be no adverse impact on the integrity of designated and proposed European designated sites; and
- c) There will be no harm to nationally designated sites; and
- d) There will be no harm to locally designated sites including Sites of Importance for Nature Conservation (SINCs) and Local Nature Reserves (LNRs); and
- e) There will be no loss or deterioration of a key habitat type, including irreplaceable habitats; and
- f) There will be no harm to the integrity of linkages between designated sites and key habitats.

The weight given to the protection of nature conservation interests will depend on the national or local significance and any designation or protection applying to the site, habitat or species concerned.

2. Where development proposals do not comply with the above they will only be permitted if it has been clearly demonstrated that there is an overriding public need for the proposal which outweighs the need to safeguard

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biodiversity and/ or geodiversity and there is no satisfactory alternative with less or no harmful impacts. In such cases, as a last resort, compensatory measures will be secured to ensure no net loss of biodiversity and, where possible, provide a net gain.

3. Applications for development must include adequate and proportionate information to enable a proper assessment of the implications for biodiversity and geodiversity.

4. In order to secure opportunities for biodiversity improvement, relevant development proposals will be required to include proportionate measures to contribute, where possible, to a net gain in biodiversity, through creation, restoration, enhancement and management of habitats and features including measures that help to link key habitats.

Approaches to secure improvements could be achieved through:

a) A focus on identified Biodiversity Opportunity Areas and Biodiversity Priority Areas as identified in the councils Green Infrastructure Strategy (and subsequent updates) where appropriate; and through

b) On-site and/ or off-site provision linked to new development in accordance with the council's adopted green space standards.'

3.2.2 A new Landscape, Biodiversity and Trees Supplementary Planning Document adopted in December 2018 explains how landscape, biodiversity and tree considerations should be integrated into the development process to ensure that the Local Plan's requirements are met and best practice is achieved in particular regarding biodiversity net gain as follows:

Principle B7

'Basingstoke and Deane Borough Local Plan Policy EM4 and the NPPF require that new developments deliver a net gain for biodiversity. The government has international and national commitments to achieve net gains in biodiversity and development can contribute towards realising these commitments. Recent guidance has been published on the principles to achieving this. The council will expect developments to demonstrate how a net gain has been achieved, through quantitative information (i.e. number or

area) within ecological reports outlining what biodiversity features will be lost and what biodiversity features will be restored, created and/or enhanced. The council intends to adopt a Biodiversity Compensation Framework that will provide a measurement metric to calculate biodiversity net loss or gain (see section on 'Compensation', below). Once this has been adopted, the council will expect developers to use this to demonstrate how biodiversity enhancements have been achieved. In the meantime developers are encouraged to use one of the metrics in use by other local planning authorities in the country, such as Warwickshire County Council. These are based on the metric developed by Defra.'

4 SURVEY METHODS

4.1 Desktop Study

4.1.1 A desktop study was undertaken on 24th February 2020 by a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). The study is based on the findings of a Phase 1 habitat survey completed by Urban Wildlife (October 2019) and a tree report undertaken by Braemar Arboriculture Limited (October 2019). A summary of the habitats on site were noted and plotted on a site plan (**Appendix 1**) using definitions based on the standard Phase 1 habitat survey definitions (JNCC 2010).

4.2 Biodiversity Net Gain Metric Calculation

4.2.1 An assessment of net gain in biodiversity was based upon the Biodiversity Metric Calculation Tool (v3) produced by the Natural England. The habitats to be retained, created, recreated and restored were measured and entered into the calculation.

5 SURVEY FINDINGS

5.1 Site Overview

5.1.1 The survey site consisted of a central area of improved grassland, a row of scattered trees on the western boundary, and species-poor hedgerows on the northern and eastern boundaries. A drainage ditch was situated along the hedgerow to the north of the site along Berrywood Lane.

5.2 Habitats

5.2.1 The following Phase 1 habitat types were observed within and adjacent to the site boundary during the survey (in line with the habitat classifications used in the Biodiversity Metric): improved grassland, scattered trees and species-poor hedgerows.

5.2.2 The habitat types are described below in detail; their distribution is shown on the site plan in **Appendix 1**.

5.3 Improved grassland (I1 & I2)

5.3.1 The site comprised predominantly of improved grassland. The grassland in the past had been intensively managed as an arable field and in recent times has been managed as a meadow, however it still comprised of species typical of improved grasslands. Species present included perennial rye grass (*Lolium perenne*), couch grass (*Elytrigia repens*), rough meadow grass (*Poa trivialis*), meadow grass (*Poa* sp.), Yorkshire fog (*Holcus lanatus*), red fescue (*Festuca rubra*), timothy (*Phleum pratense*), creeping bent (*Agrostis tenuis*), white clover (*Trifolium repens*), dock (*Rumex* sp.), dandelion (*Taraxacum officinale* agg.), meadow buttercup (*Ranunculus acris*), creeping buttercup (*Ranunculus repens*), meadow buttercup (*Ranunculus acris*), herb robert (*Geranium robertianum*), nettle (*Urtica dioica*), field sow thistle (*Sonchus arvensis*), cow parsley (*Anthriscus sylvestris*), and hogweed (*Heracleum sphondylium*).

5.4 Species-poor hedgerow (PH1, PH2 & D1)

5.4.1 A blackthorn-dominated (*Prunus spinosa*) hedgerow extended the length of the northern boundary of the site with a ditch on the northern side of the hedgerow along Berrywood Lane (**PH1 & D1**). The hedgerow was

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considered to be of moderate condition; it was semi-mature and had been laid in the past, and was a relatively dense hedgerow.

- 5.4.2** A young and newly planted beech (*Fagus sylvatica*) hedgerow was present on the eastern boundary (**PH2**).

5.5 Scattered trees (SBW1)

- 5.5.1** A line of scattered trees of mostly young and semi-mature trees were present along the western boundary of the site and included alder buckthorn (*Frangula alnus*), silver birch (*Betula pendula*), bird cherry (*Prunus padus*), atlas cedar (*Cedrus atlantica*), apple (*Malus* sp.), mountain ash (*Sorbus aucuparia*), hornbeam (*Carpinus betulus*) and cherry plum (*Prunus cerasifera*). Two trees are to be removed as part of the proposed work including a semi-mature cherry plum (*Prunus cerasifera*) which is required to be removed to allow a new access onto the site and a young apple tree (*Malus* sp.) which was in poor condition.

5.6 Biodiversity Value

- 5.6.1** Basingstoke and Deane Borough Council requested that the change in ecological value of the site from its pre-development to its post-development state be assessed to determine whether a net gain for biodiversity value of 10% is achievable in line with the requirements of the NPPF. Natural England have advised that the development should also achieve nutrient neutrality with sufficient certainty to meet the requirements of the Conservation of Habitats and Species Regulations 2017 (as amended).
- 5.6.2** A net gain has been accomplished using the Biodiversity Metric Calculation Tool (v3) produced by the Natural England (Natural England, 2021). A summary table outlining the change in biodiversity value is shown in the table below. The raw data is presented in the separate metric calculation tool document detailing the areas of habitat to be retained and created; plans of the habitats are detailed in **Appendices 2-4**.

Land at Berrywood Lane		Return to results menu
Headline Results		
On-site baseline	Habitat units	0.36
	Hedgerow units	0.52
	River units	0.00
On-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	0.82
	Hedgerow units	0.92
	River units	0.00
On-site net % change (Including habitat retention, creation & enhancement)	Habitat units	128.80%
	Hedgerow units	75.15%
	River units	0.00%
Off-site baseline	Habitat units	2.40
	Hedgerow units	0.00
	River units	0.00
Off-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	6.56
	Hedgerow units	0.00
	River units	0.00
Total net unit change (including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	4.62
	Hedgerow units	0.39
	River units	0.00
Total on-site net % change plus off-site surplus (including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	1284.43%
	Hedgerow units	75.15%
	River units	0.00%
Trading rules Satisfied?	Yes	

5.6.1 The proposals will result in the improved grassland on the development site to be recreated with areas of native and non-native tree planting, native species rich hedgerow planting, native scrub planting, a pond, introduced shrub planting and amenity grassland. The recreation of these habitats alone would result in a positive net gain of habitat units of approximately 129% and 75% for hedgerow units.

5.6.2 An area of 0.58 hectares of improved grassland (I2) on the adjacent land to the south and under the same land ownership will be created with an area of 0.55 hectares as a native lowland meadow (S11) and an area of 0.03 hectares planted as a traditional orchard (SBW3). The newly created habitats will achieve a significant biodiversity net gain.

5.6.3 Creating an area of 0.58 of this adjacent improved grassland as a lowland grassland meadow and orchard would achieve a 1284.43% net gain in biodiversity, i.e., above the minimum NPPF requirement. The creation of a new ;lowland grassland meadow would also ensure nutrient neutrality. The aim is to allow the area, which is currently fenced off grassland, to be planted with a native chalk grassland seed mix. The aim is to achieve a

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species-rich grassland within 10 years with wildflower and sedges comprising at least 30% of the sward, excluding white clover, creeping buttercup and injurious weeds. The creation of the lowland grassland meadow will provide enhanced habitats for wildlife for the long term. An area of 0.02 hectares will be retained as a neutral grassland with an access track for adjacent fields as existing. A group of ten trees will be planted amongst the grassland to create a traditional orchard including apple (*Malus sp.*) and cherry (*Prunus sp.*) species.

- 5.6.4** The recreated habitats elsewhere within the development site include introduced shrubs and bulbs planted beneath the trees which will add structural diversity to the site. The wildflower grassland to be recreated within the garden, new native species-rich hedgerows and two patches of scrub planted along the eastern hedgerow which will also improve the species richness and structural diversity of the site, will provide cover and sheltering opportunities for amphibians, reptiles and small mammals. The recreated pond on site will provide a habitat of high ecological value for breeding amphibians including the fully protected great crested newt (*Triturus cristatus*).
- 5.6.5** The hedgerow features across the development site contribute to an increase from 0.57 to 0.97 units due to the planting of new species rich hedgerows and a few new scattered broadleaved trees on site.
- 5.6.6** The construction of the dwelling may have a negative ecological impact in the form of increased light spillage on adjacent habitats which could adversely impact foraging and commuting bats. Therefore, in order to mitigate for this potential impact, the scattered trees along the western boundary should remain unlit to avoid any negative impact on protected species.
- 5.6.7** This calculation demonstrates quantitatively that the proposed development will achieve a biodiversity net gain in-line with the requirements of the NPPF, i.e. a minimum of 10% net gain in biodiversity value.

5.7 Ecological Enhancements

- 5.7.1** Paragraph 118 of the NPPF states that '*opportunities to incorporate biodiversity in and around developments should be encouraged.*' There

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would be scope to incorporate ecological enhancement on the site through additional measures below:

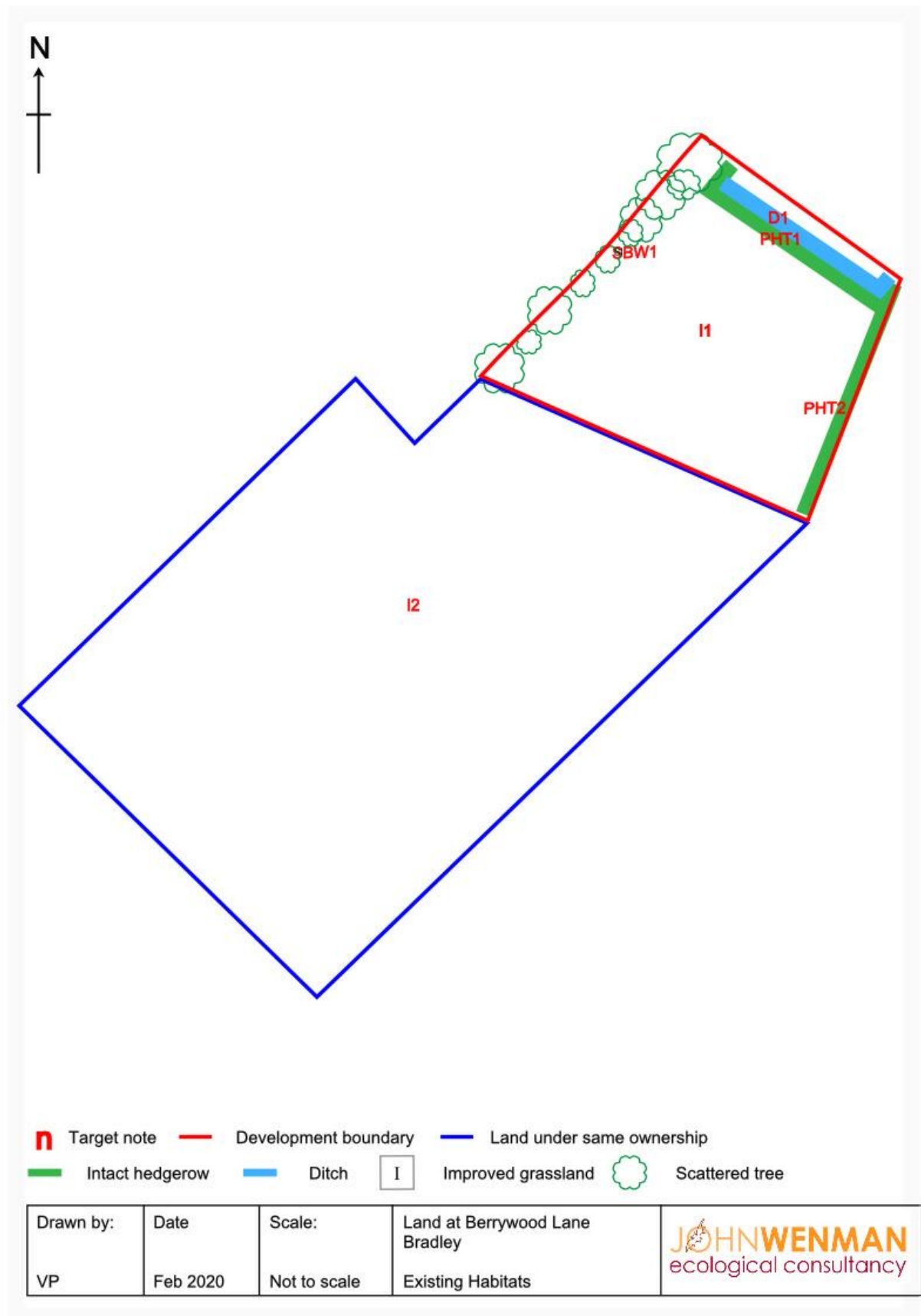
- Provision of one or two log and/or brash piles on the eastern boundary within the patches of the new scrub to be planted to provide sheltering and over-wintering habitat for reptiles and other species such as common toads and invertebrates.
- Provision of sparrow and swift bricks within the new property on site.
- Provision of bat tubes within the walls of the new property on site
- Erection of a pole-mounted barn owl box on site.

6 REFERENCES

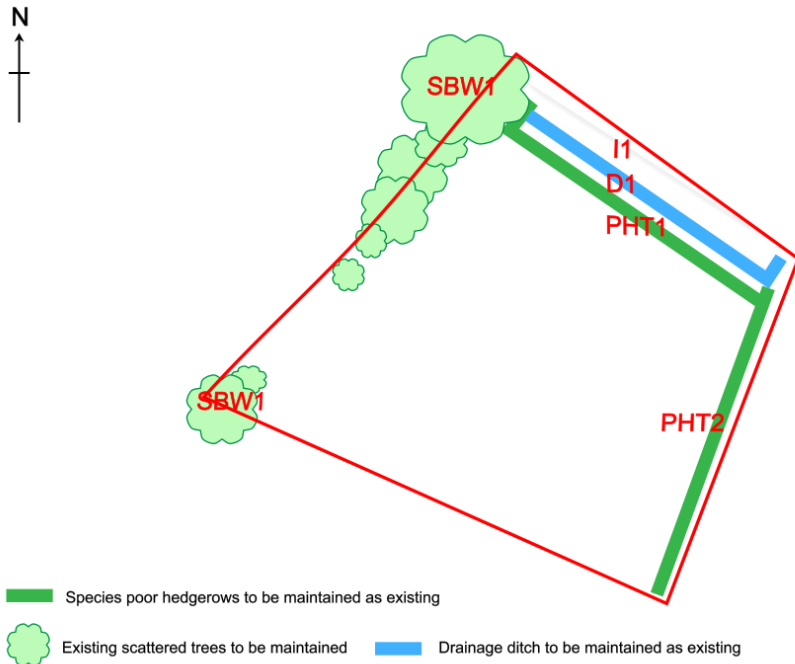
Joint Nature Conservation Committee (JNCC) (2010). *Handbook for Phase 1 Habitat Survey – A Technique for Environmental Audit*. JNCC, Peterborough.

Woodland Trust - <https://www.woodlandtrust.org.uk/>

APPENDIX 1 – EXISTING SITE HABITAT PLAN

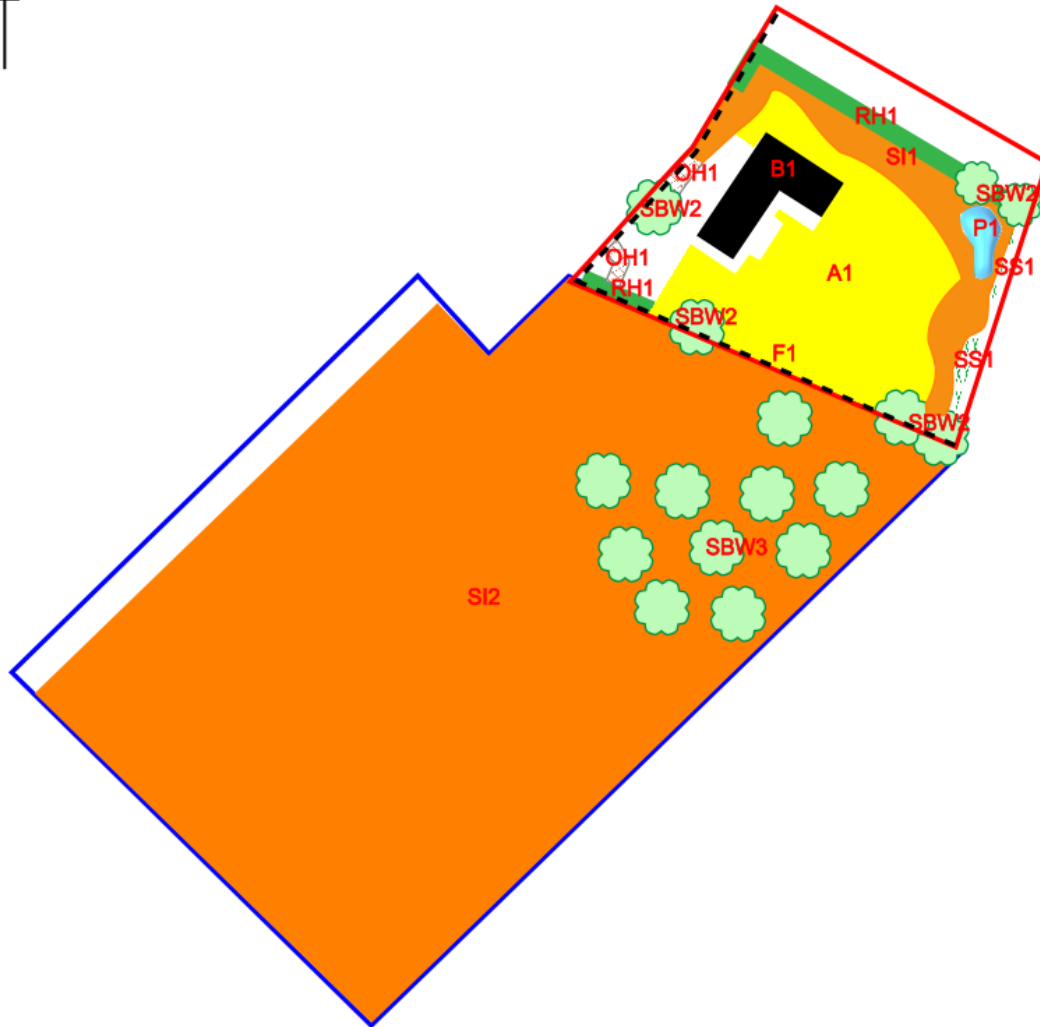
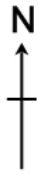


APPENDIX 2 – HABITATS TO BE RETAINED



Drawn by:	Date	Scale:	Land at Berrywood Lane Bradley	
VP	April 2021	Not to scale	Habitats to be retained	

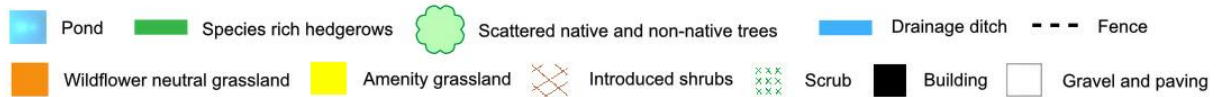
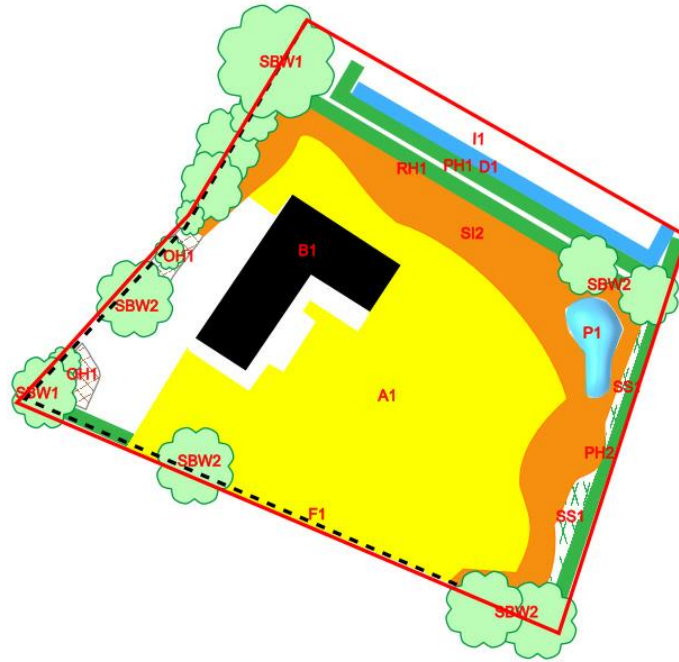
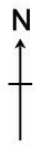
APPENDIX 3 – NEW HABITATS TO BE CREATED



- Building
 Gravel and paving
 Fence
 Scrub
- Pond
 Species rich hedgerows
 Scattered native and non-native trees
- Lowland neutral grassland
 Amenity grassland
 Introduced shrubs

Drawn by:	Date	Scale:	Land at Berrywood Lane Bradley New habitats to be created on and off-site	
VP	Sept 2021	Not to scale		

APPENDIX 4 – OVERALL DEVELOPMENT SITE PLAN



Drawn by: VP	Date Feb 2020	Scale: Not to scale	Land at Berrywood Lane Bradley Habitat plan	
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