



# PRELIMINARY ECOLOGICAL APPRAISAL

Croxlea, Parsonage Lane, Winford, Bristol  
BS40 8DH

A REPORT FOR  
MS LYNETTE  
PORTER

This report provides an independent assessment of the habitats within the site and their relative ecological value, alongside a determination of likely constraints and opportunities for enhancement

Robin Searle

Survey and Assessment  
completed in June 2023

**Table 0.1** - Document and Version Control

Author	Robin Searle BSc (Hons) ACIEEM, Giles Coe BSc (hons) MCIEEM		
Site	Croxlea, Parsonage Lane, Winford, Bristol BS40 8DH		
Reference	CE23101		
Type	Preliminary Ecological Appraisal		
Version	Checked	Approved	Date
V1	Linda Kerrison ACIEEM	Giles Coe	19/01/2023

### Copyright and guidance

This report has been written to provide an objective assessment of the ecological constraints and opportunities that were considered to be present at the site at the time the survey/s were conducted and, should be used solely for the purpose for which it was designed. The copyright must be considered to rest with Co-ecology Ltd whilst use of the report is for the commissioning party and their client only, unless with the express and written consent of Co-ecology Ltd.

The surveys and assessment have been drafted to be in accordance with the British Standard for Biodiversity BS42020:2013, Biodiversity - Code for planning and development and the Code of Professional Conduct published by the Chartered Institute of Ecology and Environmental management.

**N.B** It must be noted that investigations of this sort provide only a snapshot in time of the ecological conditions of a site, are limited in extent and cannot capture the full picture of the biodiversity interests at the given location.

# Contents

1	Summary of Assessment .....	1
2	Background .....	3
3	Methodology .....	5
4	Results .....	7
	Figure 4.1 Statutory Designated Nature Conservation Sites within 5km and 10km of the site .....	11
	Figure 4.2 Priority Habitats and Ancient Woodland within 2km of the site .....	12
	Figure 4.3 Habitat Map .....	17
	Figure 4.4 Pond Map .....	18
5	Impacts and Opportunities .....	19
6	Recommendations .....	21
	References.....	23
	Photographs .....	24
	Plant Species List.....	27

# 1 Summary of Assessment

Ms Lynette Porter has commissioned Co-ecology to provide advice and support relating to the re-development of the buildings at Croxlea, Parsonage Lane, Winford, Bristol. The following points summarise the main results of this Preliminary Ecological Appraisal.

- 1.1. The proposals are to re-develop the site, to include demolition of all buildings with new residential property and associated office and gym space will be built in replacement.
- 1.2. There are three internationally important and protected sites within a 10km radius of the site, Chew Valley Lake Special Protected Area (SPA) 4.7km south east, North Somerset and Mendip Special Area of Conservation (SAC) cited for it's population of bats is 6.6km west and the Avon Gorge Woodland SAC, 8.7km north.
- 1.3. The Felton Common Local Nature Reserve (LNR) lays 1.97km to the west, this site is designated for the mosaic of habitats present from acidic and calcareous grassland to scrub, including limestone heath, which supports a variety of plants, invertebrates, and birds.
- 1.4. There are seven Sites of Special Scientific Interest (SSSI) with in the 2km radius of the development site. The closest is Hartcliffe Rocks Quarry SSSI lies 1.52km north of the site. The main reason for this sites designation is due to its geology comprising exposures of Triassic Dolomitic conglomerate overlying carboniferous limestone. No impacts to these sites are predicted to arise from the proposals.
- 1.5. There are eight non-statutory Local Wildlife Sites (LWS) within 2km of the development site, the closest is Land around Redding Pit Lane LWS which lays approximately 0.53Km to the south. No impacts to these sites are predicted to arise from the proposals.
- 1.6. A UKHab Habitat survey and protected species assessment was carried out in June 2023 by an experienced ecologist.
- 1.7. The habitats within the developable area of the site were dominated by *s – sparsely vegetated land* (bare ground), *g4 – modified grassland* and *u1b5 – Buildings*.
- 1.8. Other habitats supported at the site include *h3h - mixed scrub*, *h2a - native hedgerow* (Priority Habitat), and *h2b - Other hedgerow and scattered trees*.
- 1.9. The proposals are centred in the existing building footprint and areas of bare ground, all buildings will be demolished as part of the proposals whilst the trees and lines of hedgerow will be retained.
- 1.10. Surveys carried out in 2023 by Co-ecology confirmed the existing bungalow has a confirmed bat roost present and the results and recommendations are presented separately (Co-ecology, 2024).
- 1.11. Breeding birds – The demolition of the main house and the outbuildings on the site has potential to damage or destroy breeding bird nests. These buildings should be removed outside of the main breeding bird season, or a pre-construction check by a suitably qualified ecologist is required. Demolition can only take place once any breeding birds have been confirmed absent.
- 1.12. Badgers – Badgers are known to occupy the surrounding habitats and may utilise the site for foraging and commuting, no setts were located and no mitigation measures are required.
- 1.13. Dormouse – There is suitable habitat within the site boundary for his species provided by scrub and hedgerows. However, as none of the suitable habitat is likely to be removed as part of the proposals no impacts is predicted and there is no requirement for further survey.

- 1.14. Great crested newts – There are six ponds within 250m of the site with at least five of those ponds having a connection via suitable habitats. However, no suitable habitats are present within the construction zone and so no further surveys are required, a simple precautionary approach is recommended for construction.
- 1.15. The site is largely unsuitable for reptiles due a lack of the habitat mosaic required for shelter, foraging and basking. No further surveys are required.
- 1.16. Overall, the developable area is considered to have value for biodiversity at the **site level only**.
- 1.17. There are opportunities to compensate for the predicted loss of habitats through careful design of new scrub or hedgerow planting, a flowering lawn seed mix, the use of shade tolerant planting to create a ground layer in the retained woodland and the provision of bat and bird boxes.

## 2 Background

### *Overview of the commission and the proposals*

- 2.1. Ms Lynette Porter has commissioned Co-ecology to provide advice and support relating to the re-development of the buildings at Croxlea, Parsonage Lane, Winford, Bristol.
- 2.2. The development proposals, based on the current plans by Angus Meek Architects (2023) are to:
  - Demolish all existing buildings;
  - Replace the current bungalow with a 4 bed house;
  - Existing garage to be rebuilt and extended to provide home gym and office; and
  - Build a new double garage.
- 2.3. To provide a first stage in assessment, this Preliminary Ecological Appraisal report has been completed and comprises the following elements:
  - A data search with the local environmental records centre;
  - results of a survey of the on-site habitats following the UK Habitats Classification;
  - an assessment of the likely presence of legally protected species;
  - an evaluation of the relative nature conservation value of the site;
  - an initial assessment of likely impacts and opportunities;
  - recommendations for any further surveys or assessments that may be necessary.

### *Objectives of this appraisal*

- 2.4. To use the process outlined above to determine - the status and value of the habitats within the site, any likely constraints to the proposals, an initial assessment of impact to any identified ecological receptors and measures to off-set those impacts and provide enhancements in line with National and local planning policies.
- 2.5. The primary objectives of this appraisal are to ensure that all impacts are correctly identified, to determine if any further surveys may be required, and to provide an outline appropriate measures for mitigation, compensation and enhancement.

### *Site context*

- 2.6. The site is located in a rural area on the outskirts of Winford village, located to the south-west of Bristol, National grid reference ST 53395 64550. Directly north of the site lies both planted deciduous and coniferous woodland habitat. To the south the site borders Parsonage Lane, beyond which agricultural fields and residential/farm buildings are present. To the east and west lie further farm buildings and fields, interspersed with conifer trees.
- 2.7. The site itself is within the curtilage of the residential property of Croxlea which is a small brick-built bungalow with two outbuildings and two sheds associated with it. The adjacent garden within the property is dominated by an open area of bare ground, scrub and vegetable patch.

### *Legislative and policy*

- 2.8. The following pieces of legislation and National policy are relevant to this appraisal and have been used to inform this appraisal;
  - The Environment Act (2021)
  - Conservation of Habitats and Species Regulations 2017 (as amended)

- Wildlife and Countryside Act 1981 (as amended)
- Natural Environment and Rural Communities Act 2006
- Protection of Badgers Act 1992
- The National Planning Policy Framework 2019
- Biodiversity and geological conservation: circular 06/2005

2.9. The following local policies are extracted from the North Somerset Council Core Strategy <sup>1</sup>

- Policy CS4: Nature Conservation
- Policy CS9: Green Infrastructure

2.10. An extract of the key relevant sections of these policies is provided below whilst the full policies themselves are available online following the link provided in the footer.

2.11. Policy CS4:

*“The biodiversity of North Somerset will be maintained and enhanced by:*

*1) seeking to meet local and national Biodiversity Action Plan targets taking account of climate change and the need for habitats and species to adapt to it;*

*2) seeking to ensure that new development is designed to maximise benefits to biodiversity, incorporating, safeguarding and enhancing natural habitats and features and adding to them where possible, particularly networks of habitats. A net loss of biodiversity interest should be avoided, and a net gain achieved where possible;*

*3) seeking to protect, connect and enhance important habitats, particularly designated sites, ancient woodlands and veteran trees;*

*4) promoting the enhancement of existing and provision of new green infrastructure of value to wildlife;*

*5) promoting native tree planting and well targeted woodland creation, and encouraging retention of trees, with a view to enhancing biodiversity.*

2.12. Policy CS9:

*“The existing network of green infrastructure will be safeguarded, improved and enhanced by further provision, linking in to existing provision where appropriate, ensuring it is a multi-functional, accessible network which promotes healthy lifestyles, maintains and improves biodiversity and landscape character and contributes to climate change objectives.”*

2.13. Additionally, the supplementary planning document (SPD) for the North Somerset and Mendip Bats SAC<sup>2</sup> has been consulted in regards of possible impacts and any additional survey requirements.

---

<sup>1</sup> [Layout 1 \(n-somerset.gov.uk\)](https://www.n-somerset.gov.uk/layout-1)

<sup>2</sup> [Microsoft Word - FULL Adopted SPD, Word version \(n-somerset.gov.uk\)](#)

## 3 Methodology

### *Personnel*

- 3.1. The habitat survey, site appraisal and reporting were carried out by Robin Searle BSc (Hons) ACIEEM. Robin is an ecologist with 10 years commercial experience in quantitative field surveys and assessments and with expertise in habitats although primarily a specialist in the mitigation of impacts to legally protected species.
- 3.2. The report was co-authored by Giles Coe MCIEEM. Giles is an ecologist with more than 22 years commercial ecological experience in quantitative field surveys and assessments and with expertise in habitats and plant identification although primarily a specialist in the mitigation of impacts to legally protected species. Giles has acted as named ecologist on Mitigation Licences for bats, badgers, and great crested newts since 2015, is a Registered Consultant on the earned recognition class licence scheme for bats and badgers, is an additional authorised person on the Environment Agency's organisational licence for badgers and named ecologist for great crested newts on a long running NSIP<sup>3</sup>.

### *Contextual information and data records*

- 3.3. Contextual information on the site was gathered from freely available online resources including a 2km search for habitats and species and a 10km search for protected sites using Magic Map hosted by Defra. Online aerial imagery was used to make an assessment of the sites position within the wider landscape including connectivity and potential corridors for movement. A 2km standard data search was commissioned from the Bristol Regional Environmental Records Centre and the most pertinent results are summarised in this report. Only records with at least 6 figure grid-references were used as these provide enough accuracy to be of value to the assessment.

### *UK Habitats Classification Survey*

- 3.4. The surveyor visited the site on June 17<sup>th</sup> 2023 and recorded all identifiable plant species with an indication of their relative abundance following the DAFOR<sup>4</sup> scale. The purpose of the survey was to complete a baseline habitat survey of the developable areas of the site using the UK Habitats Classification system. The UKHab-Professional system was used as reference with habitats assigned to either Level 3 or to Level 4 where applicable, the minimum mapping unit used was 25m<sup>2</sup> and all Secondary Codes were utilised where the relevant conditions pertained.

### *Protected Species Risk Assessment*

- 3.5. This report provides an assessment of the likely presence of any legally<sup>5</sup> protected or notable<sup>6</sup> species based on the habitats present and the known affiliations of species with those habitats and their distribution across the UK. The assessment draws on the findings of the site visit, the contextual information and any data records returned from the Local Environmental Records Centre during the desk study.

---

<sup>3</sup> National Significant Infrastructure Project

<sup>4</sup> Dominant, Abundant, Frequent, Occasional, Rare

<sup>5</sup> Wildlife and Countryside Act 1981 (as amended). The Conservation of Habitats and Species Regulations 2017.

<sup>6</sup> Notable includes those listed as Priority Species under Section 41 (S41) of the 2006 Natural Environment and Rural Communities (NERC) Act.



### *Evaluation*

- 3.6. An assessment is provided as to the likely importance of the site judged by the habitats that are present and the species that have been confirmed or are likely to be present. This value is expressed at a geographic scale following criteria set out by CIEEM (2017) in their impact assessment guidance.

### *Constraints*

- 3.7. The habitat survey was carried out in June and therefore any plants with an earlier or later flowering phenology may have been underreported or missed.
- 3.8. The scrub within the site was dense and inaccessible for its entirety, therefore a species list was drawn from what species were visible on the border of this habitat.
- 3.9. For full disclosure the habitat survey was completed by a relative of the client. However, the surveyor (Robin Searle) is a suitably qualified ecologist with 10years experience and the results of the survey was independently verified by Giles Coe who also co-authored the report.

## 4 Results

### Contextual information and biological records

4.1. The tables below set-out the pertinent findings from the desk study and data search.

**Table 4.1** Internationally important and protected sites within a 10km radius of the development site and nationally important within 5km

Type	Site	Reason for Citation	Distance and orientation
SPA, SSSI	Chew Valley Lake	<p>The site consists of an expanse of open water (the largest artificial freshwater lake in South West England) with peripheral areas of reedbed, carr, woodland and neutral grassland. The sparse submerged vegetation is composed largely of Fennel Pondweed <i>Potamogeton pectinatus</i>, Lesser Pondweed <i>Potamogeton pusillus</i>, Opposite-leaved Pondweed <i>Groenlandia densa</i> and Water Crowfoots <i>Ranunculus</i> spp.</p> <p>The site is an internationally important staging post for migratory birds, especially waders, terns, warblers and hirundine. The grasslands and reedbeds are a critical autumn feeding ground for Reed Warblers <i>Acrocephalus scirpaceus</i> and Sedge Warblers <i>A. schoenobaenus</i>,</p>	4.65km South east
SAC (bats)	North Somerset & Mendip	<p>The Cheddar complex and Wookey Hole areas support a wide range of semi natural habitats including semi-natural dry grassland and scrubland. The site is important for a number of rare plants which are associated with Carboniferous limestone habitats.</p> <p>The limestone caves of the Mendips provide a range of important hibernation sites for lesser horseshoe bat <i>Rhinolophus hipposideros</i> and the greater horseshoe bat <i>R.ferrumequinum</i>.</p> <p>The site represents 3% of the UK greater horseshoe population and it has good conservation of structure and function, having both maternity and hibernation sites.</p>	6.6km West 8.87km South west
SAC	Avon Gorge Woodland	<p>Avon Gorge is representative of Tilio-Acerion forests in south-west England on the limestone cliffs and screes of a large river gorge. It is important because of the high concentration of small-leaved lime <i>Tilia cordata</i>, compared with other sites in the region, the presence of rare whitebeams <i>Sorbus</i> spp., including two unique to the Avon Gorge (<i>S. bristoliensis</i> and <i>S. wilmottiana</i>), and other uncommon plants, such as green hellebore <i>Helleborus viridis</i>.</p>	8.7km North
SSSI	Hartcliffe Rocks Quarry	<p>The main reason for its designation is due to its geology comprising exposures of Triassic Dolomitic conglomerate overlying carboniferous limestone.</p>	1.52km N

**Table 4.1** Internationally important and protected sites within a 10km radius of the development site and nationally important within 5km

Type	Site	Reason for Citation	Distance and orientation
SSSI	Lulsgate Quarry	<i>The site is renowned for its excellent exposure of an irregular unconformity surface lying between inclined Lower Carboniferous (Dinantian) Black Rock limestones and flat-bedded Upper Triassic ('Rhaetian') strata</i>	2.03km North-west
SSSI	Barns Batch Spinney	<i>This site is important because of the exposures which it provides of the lower part of the classic Inferior Oolite limestone sequence of the Dundry area.</i>	2.65km West
SSSI	Dundry Main Road South Quarry	<i>Renowned as one of the world's most fossiliferous exposures with well over two hundred species recorded. The Main Road Quarry exposes a fine section in the Middle and Upper Inferior Oolite.</i>	3.35km East
SSSI	Plaster's Green Meadow	<i>The unimproved and traditionally managed species-rich meadows at Plaster's Green support a neutral grassland community of a type which is now rare throughout Britain.</i>	3.29km South
SSSI	Blagdon Lake	<i>This site consists of a large freshwater reservoir with peripheral areas of reedbed, carr, woodland and natural grassland. Blagdon Lake has an average depth of only 5m, reaching 13m at its deepest point. The moderately nutrient-rich and alkaline waters stratify during the summer.</i>	4.40km South west
LNR	Felton Common	<i>The site comprises a remnant expanse of common land, of the once former extensive Broadfield Down. A mosaic of habitats from acidic and calcareous grassland to scrub, including limestone heath, which supports a variety of plants, invertebrates, and birds. Bird species include kestrel, sky lark, song thrush, willow warbler, spotted flycatcher.</i>	1.07km west

- 4.2. The development site is 4.02km south east of the Mendip Hills Area of Outstanding Natural Beauty (AONB), however given the nature, scale and location of the proposed development, there are unlikely to be any impacts on the nature conservation interests of the AONB.
- 4.3. The site lies within the Impact Risk Zone for the Chew Valley Lake, Plaster's Green Meadow and Blagdon Lake, however the development does not fall under the categories that require consultation with Natural England.
- 4.4. The data search from the Local Biodiversity Records Centre returned records within 2km of the site for:
- 41 Internationally important species;
  - 141 Nationally important species;
  - 542 Notable species;
  - 451 birds listed in the Berne/ Bonn Convention; and
  - 8 Local Wildlife Sites.



**Table 4.2** Non-statutory sites designated for their nature conservation interest within a 2km radius of the development site

Type	Site	Reason for Citation	Distance and orientation
Local Wildlife Site (LWS)	Land around Redding Pit Lane	Unimproved and semi-improved neutral grassland, and semi-natural broad-leaved woodland with bats and Badger activity, Grass Snake are also present.	0.53km south
LWS	Court Farm Field	Diverse neutral to calcareous grassland, species present include Agrimony, Wild Carrot, Pepper Saxifrage, Cowslip, Hoary Plantain, Salad Burnet, Stemless Thistle, Devil's-bit Scabious, Cat's-ear, Black Knapweed, Marsh Thistle, Spiny Restharrow, Bird's-foot Trefoil, Meadow Vetchling.	1km north-east
LWS	Felton Hill Common	Semi-improved and unimproved acidic grassland with much of site Priority Habitat Lowland Dry Acid Grassland, with unimproved calcareous grassland and scrub.	1km west
LWS	Winford Brook and adjacent land	Species include: Water Vole, silver washed fritillary, emerald damselfly, red-eyed damselfly, narrow-fruited watercress, ivy broomrape, remote sedge, moschatel, bluebell, water dock, amphibious bistort, butterbur, round leaved crane's bill.	1.11km north-east
LWS	Spring Farm Grasslands	Marshy and acid grassland. Species present include sweet vernal grass, marsh thistle, marsh bedstraw, bird's-foot trefoil, water forget-me-not, redshank, tormentil, betony, bog stitchwork, devil's-bit scabious and thyme-leaved speedwell.	1.24km south-east
LWS	Barrow and Rock Lane Fields	Diverse semi-improved neutral grassland. Includes most of Hartcliff Rocks Quarry SSSI (geological) Diverse: Salad Burnet, Cowslip, Primrose, Purging Flax, Mouse-eared Hawkweed, Dyer's Greenweed, Common Restharrow, Betony, Devil's-bit Scabious, Black Knapweed.	1.5km north
LWS	Field south-west of Castle Farm	Semi-improved neutral grassland with areas of calcareous grassland on steeper slopes. West half of site lies within Dundry Strategic Nature Area (SNA.).	1.9km north-east
LWS	South Dundry Slopes	Sweet vernal grass, quaking grass, greater knapweed, stemless thistle, lady's bedstraw, fairy flax, pepper and burnet saxifrage, restharrow, devil's-bit and small scabious, wild thyme, ragged robin, crested hair grass, corky-fruited water-dropwort.	2km north-east

4.5. Table 4.3 summaries the relevant records returned from the local biodiversity records centre for protected and invasive species within 2km of the proposed development site.

**Table 4.3.** A summary of the most relevant<sup>7</sup> records for legally protected and invasive species within a 2km radius of the development site

Status	Species	Number of records	Distance and orientation of closest
	Great crested newt	Eight 1999-2011	0.8km south-west, 2003
Habs Regs Annex 2	Serotine Noctule Common Pipistrelle Brown Long-eared bat Myotis sp. Greater horseshoe bat Lesser horseshoe bat	162 1982 – 2019 roosts 29 1996-2019	Greater horseshoe bat 0.8km south, 2001
WCA Schedule 5	Grass snake Slow worm	Two 1996-2001	Slow worm 0.8km south-west, 2001
Habs Regs Annex 2	Otter	Four 2022-2015	0.59km north-east, 2015

4.6. Four EPSM licences have been issues within 2km of the development site, table 4.4 below summaries the relevant information.

**Table 4.4.** A summary of the EPSM licences issues within 2km of the development site.

Licence number	Species	Reason	Distance and orientation of closest
EPSM2010-2305	Brown long eared Serotine	Destruction of breeding site	556m North east
2019-42661-EPS-BDX	Soprano Pipistrelle	Destruction of breeding site	669m South
2020-48580-EPS-MIT	Brown long eared Common pipistrelle	Destruction of resting place	984m South west
EPSM2010-2194	Common pipistrelle Soprano pipistrelle Brown long eared	Destruction of resting place	1.69km South west

4.7. There are nine blocks of deciduous woodland priority habitats within 2km of the site, the closest is adjacent to the development site to the north. There are a further 9 areas of traditional orchards, the closest is 45m east of the site. There is also a large area of lowland dry acid grassland 1.1km west of the site. See Figure 4.1 below.

4.8. There are six ponds within 250m of the site, the closest is 147m east although the latter pond is not well connected to the site. A further five ponds are within 500m of the site. See figure 4.2 below.

---

<sup>7</sup> This excludes species for which there are no suitable supporting habitats on the site e.g duck species, wading birds and other coastal/aquatic specialist bird species

Figure 4.1 Statutory Designated Nature Conservation Sites within 5km and 10km of the site

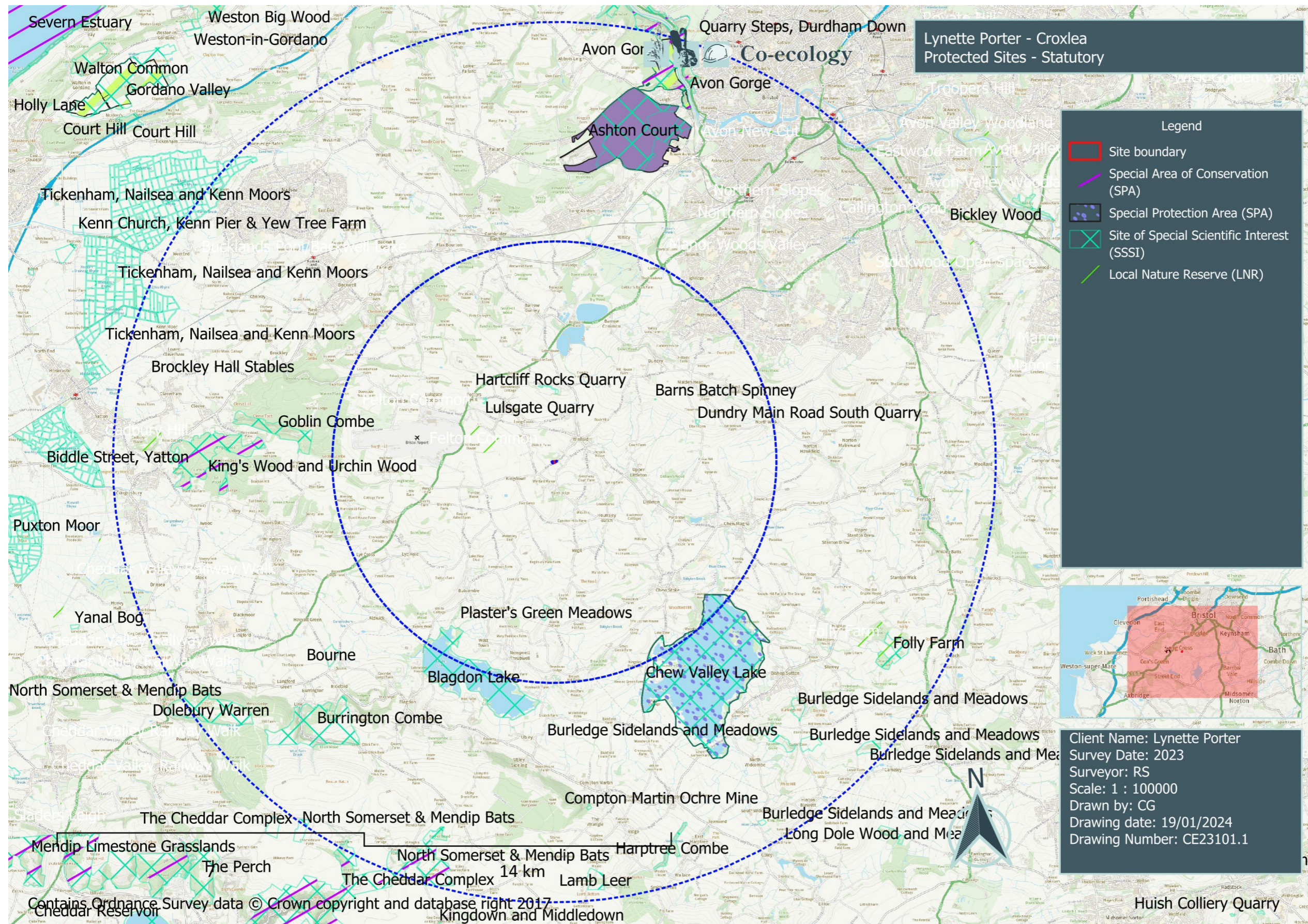
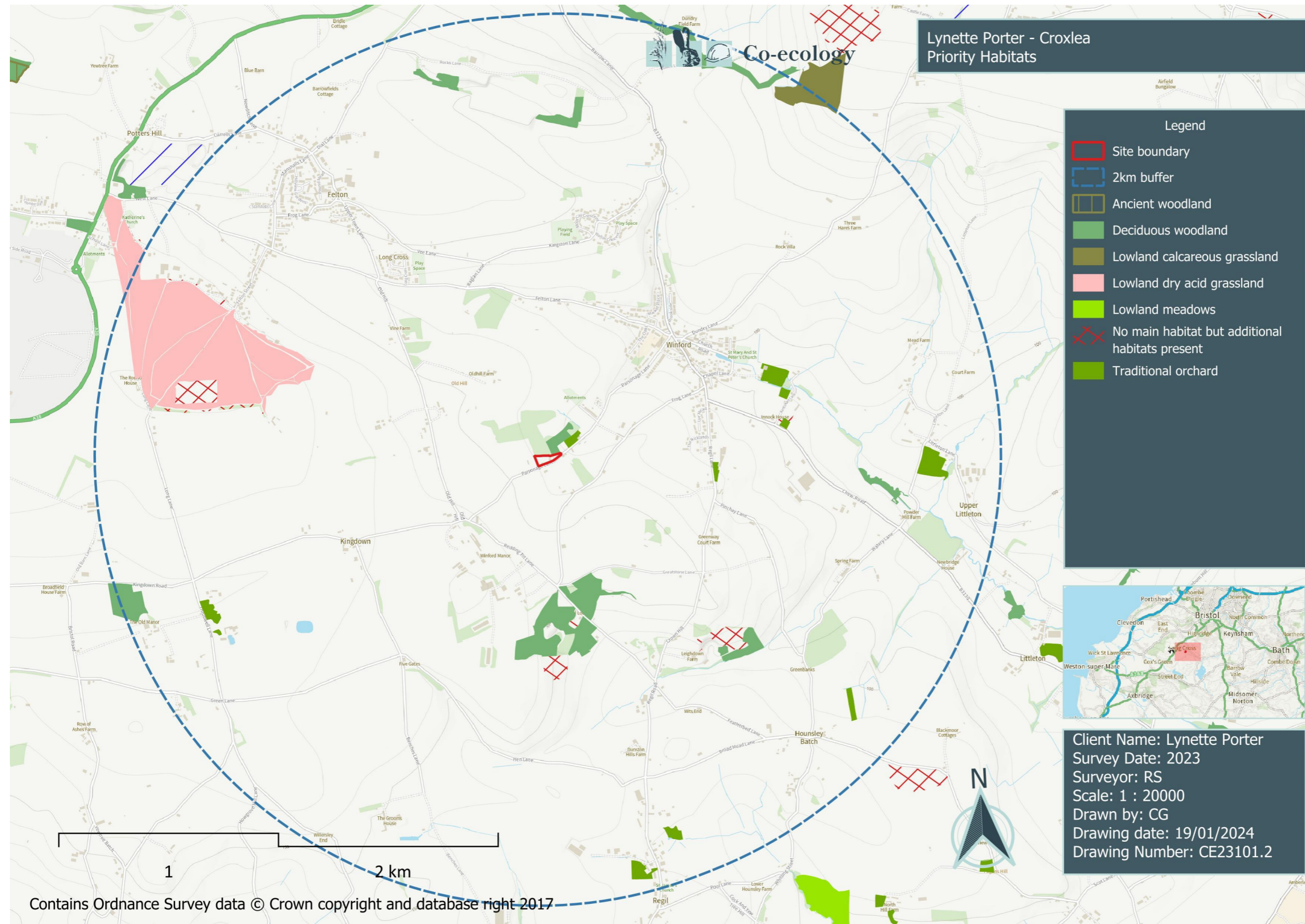


Figure 4.2 Priority Habitats and Ancient Woodland within 2km of the site



## Habitats

- 4.9. The site comprised land associated with a single residential bungalow property and outbuildings within the curtilage of Croxlea farm. The habitats were characterised by the use of the wider site as a farm and were heavily disturbed and featured farm waste and materials. Coniferous trees were a common feature of the site, as well as a few scattered orchard trees. Small patches of deciduous scrub were also present towards the rear and central parts of the site.

### *s – sparsely vegetated land 73<sup>8</sup>, 17, 16, 11*

- 4.10. The site was dominated by garden space associated with the residential bungalow property at the site. The nature of these areas reflected the farm-use of the site and were heavily disturbed and featured farm machinery and vehicles no longer in use. An area of vegetable patch was present to the north of the site and a few scattered orchard trees were present at the front of the bungalow, and scattered coniferous species were present throughout including Deodar cedar *Cedrus deodar*. Scattered ephemeral herbs were frequent including greater plantain *Plantago major*, groundsel, *Senecio vulgaris*, white clover *Trifolium repens*. Areas of tall herb associated with disturbed habitat was present to the north and featured frequent common nettle.

### *u1b5 Buildings*

- 4.11. Four buildings were present on the site, as well as three storage containers and two small wooden sheds. The main buildings were assessed for bat roosting potential (1-4) are described below:

**B1** - the main residential bungalow (Building 1) was brick-built and had a pitched roof covered with concrete tiles. The fascia and soffits were all boarded up and sealed. It is understood from the residents at Croxlea that an internal roof void is present inside and lined with fibre glass insulation. There are small vents on the building exterior which provide access into the void. The building is being used as a residential property.

**B2** - The double garage (Building 2) was of a similar construction, however, it was dis-used and featured an open front, exposing the internal space to the elements. The garages were filled with farm materials at the time of the survey.

**B3** - A shed (Building 3) was present to the rear of the property and formed dog kennels which were not in use at the time of the survey. These were single skinned metal shed which was open to the elements. A small timber shed was also present in the back patio area of the property.

**B4** - The remaining shed (Building 4) was a dis-used porta-cabin which was dis-used at the time of the survey and overgrown with ivy. The shed was filled with farm materials.

### *u1b Developed land; sealed surface*

- 4.12. The bungalow property featured an area of patio garden to the rear which linked to the outbuilding (dog kennels) to the west of the site.

### *g3c5 Arrhenatherum neutral grassland, 11<sup>13</sup>, 16<sup>14</sup>, 17<sup>15</sup>*

- 4.13. A small area of unmanaged grassland was present to the rear of the double garages. The grassland was dominated by false oat grass *Arrhenatherum elatius* with occasional cocksfoot *Dactylis glomerata* and Yorkshire fog *Holcus lanatus*. Herbs were occasional including dock *Rumex* sp., self-heal *Prunella vulgaris*, and common nettle *Urtica dioica*.

---

<sup>8</sup> Bare ground

<sup>13</sup> Scattered trees

<sup>14</sup> Tall herb

<sup>15</sup> Ruderal ephemeral



***g4 – modified grassland 11***

4.14. A small area of well worn and trampled lawn immediately outside the bungalow with some scattered fruit trees.

***h2a5 Hedgerow (Priority Habitat)***

4.15. A species-rich hedge lined the site boundary and included hazel *Corylus avellana*, dog-rose *Rosa canina*, maple *Acer campestre*, hawthorn *Crataegus monogyna*, ivy *Hedera helix*.

***h2b Nonnative & Ornamental Hedgerow***

4.16. Lines of mature conifer including Leyland cypress cypress X *Cuprocyparis leylandii* were present in the western site extent.

***h3h Mixed scrub***

4.17. A small area of mixed scrub was present in the central part of the site and featured hazel, cherry laurel *Prunus laurocerasus*, ash *Fraxinus excelsior*, dog-rose, yew *Taxus baccata* and cypress *Cupressus* sp.

4.18. Dominated by a series of large mature Scots pine with occasional silver birch, sweet chestnut *Castanea sativa*, Atlas cedar *Cedrus atlantica* and Leyland cypress X *Cuprocyparis leylandii*, there was no discernible ground layer but shrubs included privet and Schedule 9 species *Rhododendron*.

**Legally protected species- likelihood of occurrence**

4.19. The table below provides a simple assessment of the relative likelihood of any legally protected species being present within the site.

**Table 4.3.** The likelihood of occurrence of any legally protected species within the development site

Status	Species	Likelihood	Narrative
Habs Regs Annex 2 WCA Schedule 5	Bats	Roost confirmed, foraging highly likely	<p>The bungalow property featured clay tiles with some gaps, as well as venting areas on the gable ends which provide access to the internal loft space which could be used by roosting bats. The surrounding habitats provide some function for foraging bats with woodland habitats to the north, east and west, and a good network of hedgerows exist which may be used by commuting bats.</p> <p>Surveys carried out by Co-ecology in 2023 have confirmed bat roosts to be present in the existing bungalow, the full results can be found in the bat survey report (Co-ecology, 2023). Only occasional passes from lesser horseshoes were recorded and no registrations from greater horseshoe bats. The site is within Consultation Zone C and adjacent to Consultation Zone B as presented in the relevant SPD for bats.</p>
Badgers Act (1992)	Badger	Low	<p>There were no badger setts located within the site, however historical records are present for this species within 2km. The surrounding woodland, on-site scrub and native hedgerow provide suitable sett-digging habitat for badgers and the site may be used by foraging and commuting badgers.</p>
WCA Schedule 1	Breeding birds	Highly likely	<p>The trees and shrubs within the site boundary provide a high value nesting habitat for a variety</p>

**Table 4.3.** The likelihood of occurrence of any legally protected species within the development site

Status	Species	Likelihood	Narrative
			<p>of commonly encountered garden and woodland bird species. The two outbuildings and sheds are also likely to be used by nesting birds.</p> <p>A high number of notable bird species records were returned by the data search.</p>
Habs Regs Annex 2 WCA Schedule 5	Great crested newt	Moderate on site  Negligible within development footprint	<p>There are eight records for great crested newt within 2km of the site. The closest of which is over 500m away and poorly connected to the site.</p> <p>There are 6 ponds within 250m of the site and a further five within 500m. One pond is connected to the site via the adjacent woodland to the north. Although this is mapped as deciduous woodland, it is apparent from the surveyor's knowledge of the site and aerial imagery that this area has been heavily planted with conifers and only small relics of deciduous woodland are present, therefore of low quality. The site supports small pockets of suitable terrestrial vegetation in the form of scrub and grassland and the bases of hedgerows which provide suitable habitat for newts in their terrestrial phase.</p> <p>No suitable habitat within the construction area.</p>
Habs Regs Annex 2 WCA Schedule 5	Hazel dormouse	Moderate on site  Negligible within development footprint	<p>No historical records for dormice were returned by the data search. The areas of mixed scrub and Priority hedgerow habitat provide suitable breeding habitat for dormouse. There is a good network of hedgerows linking agricultural fields, however extensive semi-natural deciduous woodland is absent from the surrounding areas.</p> <p>No suitable habitat within the construction area.</p>
WCA Schedule 5	Reptiles	Low on site  Negligible within development footprint.	<p>Historical records for slow worm have been recorded within 1km of the site. No other reptiles have been recorded within 2km of the site.</p> <p>The small area of mixed scrub, small patch of neutral grassland, and the bases of hedgerow provide suitable cover, foraging and basking opportunities for reptiles. No extensive suitable habitat is present that would support significant populations of reptile and the habitats are heavily disturbed due to farming practices. It is likely that only small numbers of common and widespread species. Such as slow worm are potentially present. No suitable habitat within the construction area.</p>
WCA Schedule 9	Invasive Non Native Species - Plants	Present	<p>The Schedule 9 species <i>Rhododendron ponticum</i> was recorded within the mixed scrub habitat on site.</p> <p>No other INNS were recorded during the habitat survey.</p>

### *Evaluation*

- 4.20. The site supported a mixture of habitats typical of disturbed and unmanaged residential farmyard garden space, with a mixture of bare ground, planted and self-seeded vegetation. Plant species diversity was moderate owing to the high number of planted trees, particularly coniferous species, as well as orchard and native deciduous species. However overall, the habitats present were highly disturbed and modified and featured large areas of bare ground.
- 4.21. The site supports hedgerows which classify as Habitats of Principal Importance (HPI) and support a good variety of native tree species. These link with further HPI habitat directly north of the site in the form of deciduous woodland, albeit these areas are known to be recently planted and therefore do not hold as much intrinsic biodiversity value as older woodlands provide.
- 4.22. There are suitable habitats for a number of protected species including:
- Roosting bats (confirmed);
  - Badgers (low suitability for foraging/commuting);
  - Breeding birds (highly likely);
  - Great crested newt (low suitability in their terrestrial phase); and
  - Slow worm (low suitability).
- 4.23. However due to the highly modified and disturbed nature of the site it is unlikely to support significant populations of these species.
- 4.24. The site supports a high number of non-native planted species, including Schedule 9 invasive plant species Rhododendron.
- 4.25. When the habitats throughout the site and the likely presence of one or more legally protected species (bats, birds and reptiles) are assessed in combination the site is of value at the site level only.

Figure 4.3 Habitat Map

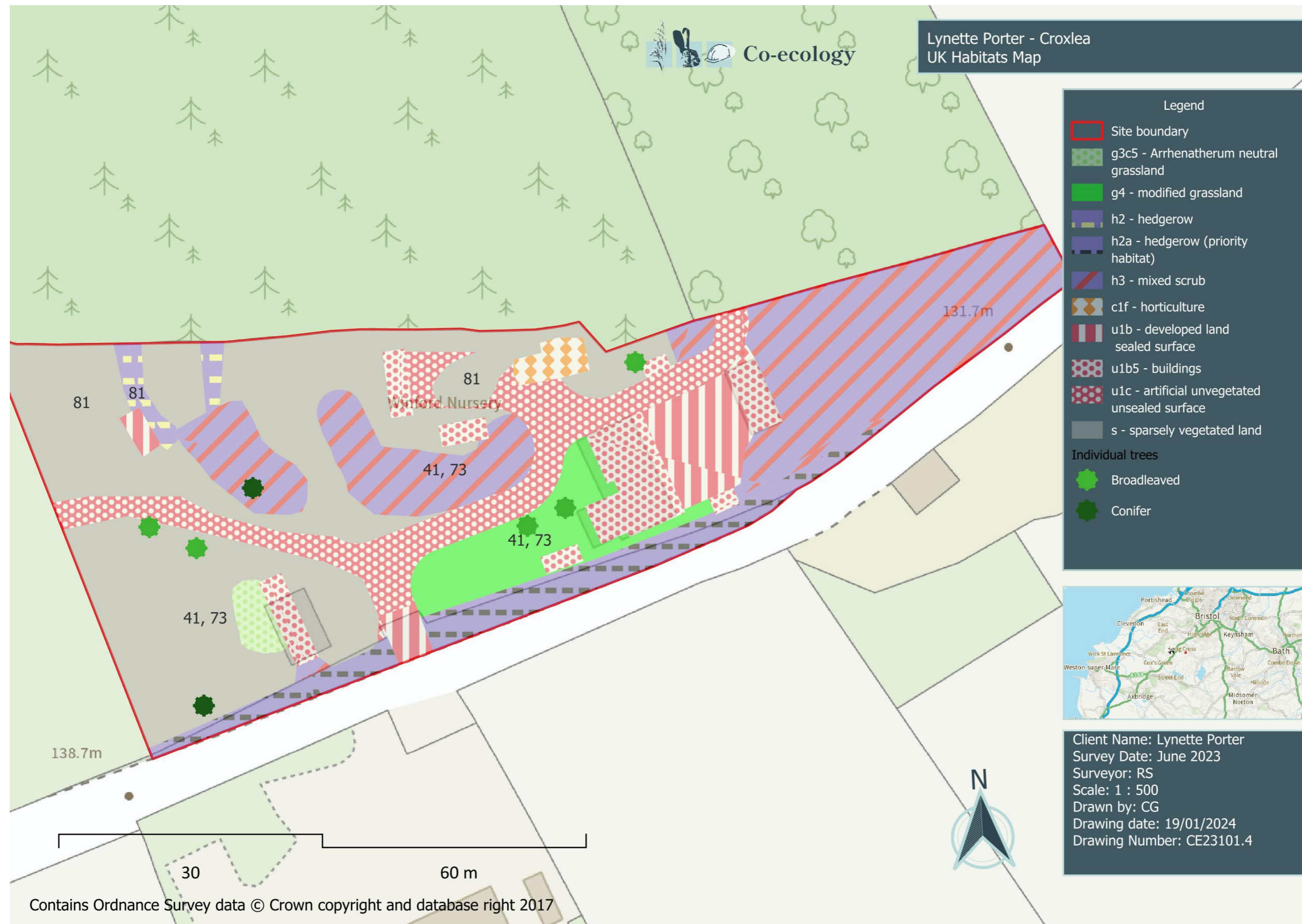
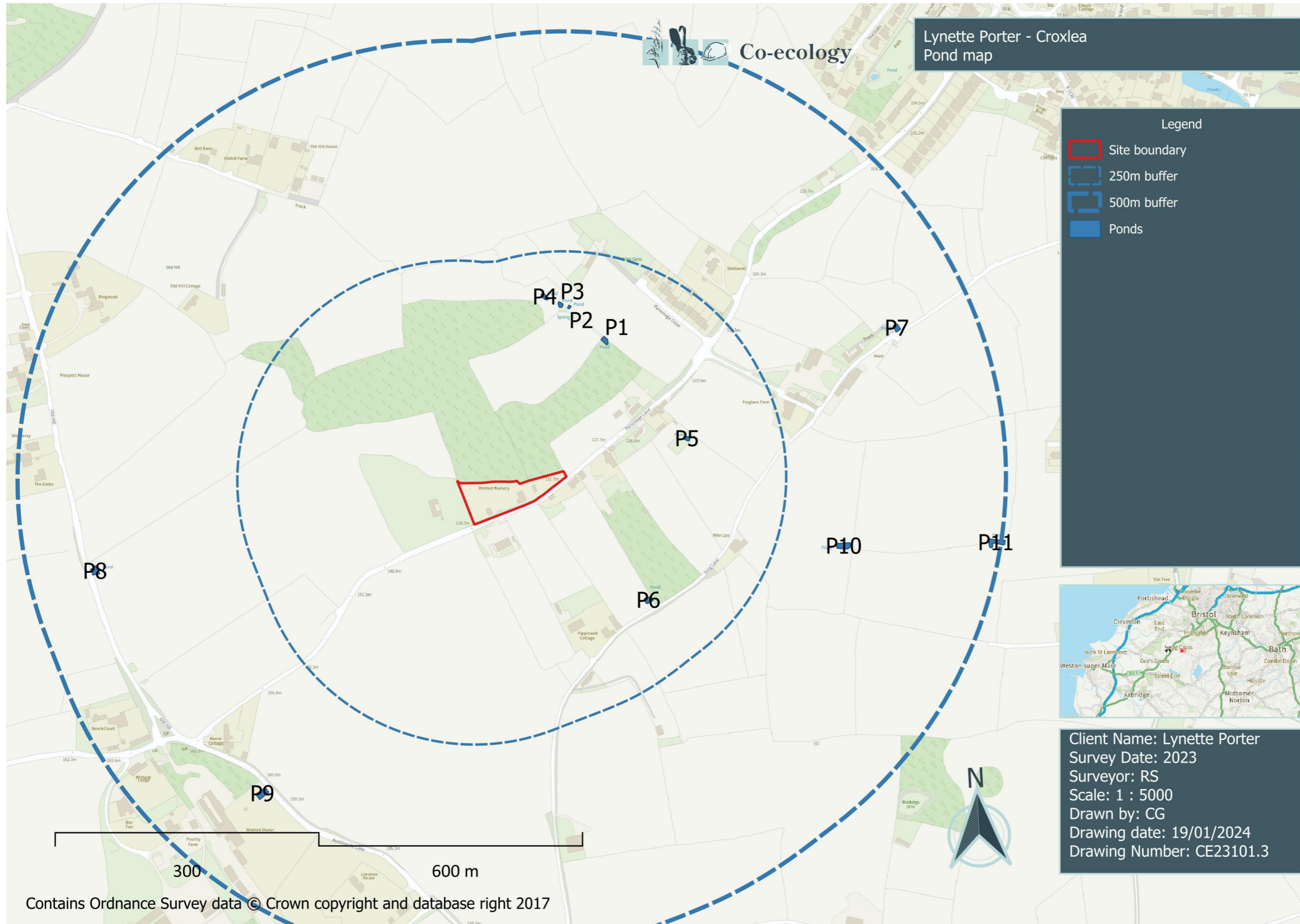


Figure 4.4 Pond Map



Contains Ordnance Survey data © Crown copyright and database right 2017

## 5 Impacts and Opportunities

### Impacts

- 5.1. **Protected sites-** When taking into account the reasons for their citation, the distance from the site, and likely absence of any supporting function from the on-site habitats, no direct impact from the proposals to the SPA, SAC, SSSI and LNR is anticipated. With the exception of the roadside hedgerow none of the habitats within the surveyed area and with certainty none of those to be affected by the proposals would be considered to be features of value to the two horseshoe species of bat. This is explored in more depth in the accompanying bat report.
- 5.2. There is a good network of eight Local Wildlife Sites within 2km of the site, however these are all over 0.5km away and not well-connect to the site. In addition, the majority of these sites are notified for supporting diverse grassland with plant and invertebrate fauna. The habitats on site are not considered to provide significant supporting habitat for these sites, being highly modified and disturbed.
- 5.3. **Habitats-** The proposals have been centred on the existing developed footprint or areas of bare ground, avoiding impacts to the existing vegetation. Small areas of ruderal/ephemeral vegetation may be lost; however, these comprise of common and widespread plant communities which are likely to re-colonise the site following completion of the works.
- 5.4. The hedgerows on site that qualify as Habitats of Principal Importance are outwith the development footprint and no loss or damage is predicted.
- 5.5. **Protected species-** Potential negative impacts of the proposals on any legally protected species should be considered for bats, breeding birds, dormouse and great crested newts.
  - **Bats** – Bat surveys have been undertaken by Co-ecology in 2023 and the bat survey report should be read in conjunction with this report for mitigation relating to this species. In the absence of mitigation the demolition of the main bungalow would result in the loss of a roost used by six individuals of a common and widespread species and risk injury or mortality if bats were present at the time.
  - **Breeding birds** – There is potential for destruction/ damage to breeding birds nests’ during demolition of the outbuildings or the main house with pairs of birds, eggs and young at risk from injury or mortality.
  - **Badgers** – Badgers are known to occupy the surrounding habitats and may utilise the site for foraging and commuting although with no setts present within the landholding impact to this species can be discounted.
  - **Dormouse** – A moderate risk that this species could be in the scrub and woody habitats around the landholding, however, as long as the scrub and hedgerow remains unaffected no impact to this species would be predicted.
  - **Great crested newts** –. There is no suitable habitat for these two species within the development footprint and direct impact can be largely discounted. However, there is a risk of them being present in the scrub habitats around the landholding and beneath stored containers and building materials. If present during clearance then works could result in the death or injury of individuals. There is no appreciable risk of loss of suitable habitat as long as the scrub areas remain unaffected.

### Opportunities

- 5.6. There are opportunities to compensate for the predicted loss of habitats through careful design of the open green space that will remain post development, these could include:
  - new wildlife-friendly shrub and tree planting;

- improvements to existing hedgerows by infilling with native species;
- biodiversity-focused habitat management; and
- provision of artificial bird nesting and bat roost boxes.

## 6 Recommendations

### *Recommendations for surveys to inform design*

- 6.1. A series of bat surveys have been undertaken by Co-ecology during 2023 to inform the scheme design due to the presence of suitable roosting features identified on the bungalow and double garages which are due to be demolished. Bats have been confirmed to be roosting in the bungalow and the bat survey report should be read for details of suitable mitigation.
- 6.2. No further surveys are considered necessary to inform the development design and planning application. This assessment is predicated on the majority of the construction footprint being dominated by bare ground and made/unmade artificial surfaces and buildings with the hedgerows, scrub and trees are being retained as part of the proposals.

### *Recommendations for surveys prior to construction*

- 6.3. A pre-construction check for badgers should be carried out to ensure no setts have been built on site prior to construction.
- 6.4. With the exception of breeding bird checks (below) and any detailed measures for the bat mitigation (see below) no further surveys are required.

### *Mitigation*

- 6.5. **Hedgerows** - The hedgerows on site qualify as Habitats of Principal Importance and are protected under the NERC Act 2006. Local planning authorities have a duty to conserve these habitats throughout their decision making, therefore these should be protected as part of the proposals following British Standards for Tree protection BS5837 (2012)
- 6.6. **Bats** - Measures to mitigate potential impacts to roosting, foraging and commuting bats will be addressed in the bat survey report (Co-ecology, 2023). A mitigation consent license from Natural England will be required and the loss of the roost fully compensated for through provision in the replacement building.
- 6.7. **Breeding birds** – The removal of any suitable nesting habitat (demolition of buildings) should be removed outside of the bird breeding season. If this timeframe cannot be avoided, a close inspection of the building and vegetation should be undertaken up to 48 hours prior to the commencement of works by an experienced ecologist. All active nests will need to be retained until the young have fledged.
- 6.8. **Dormouse** – All of the onsite hedgerows and scrub must be protected and remain undisturbed during construction and operation.
- 6.9. **Great crested newts** – A precautionary Non Licensed Method Statement must be produced to guide the construction works. Should any newts be found during the execution of this method statement then works must be halted and consent obtained from Natural England.
- 6.10. **General** - The following general mitigation measures will be implemented to allow continued use of the site for badgers, bats and breeding birds utilising the site:
  - Limit the hours of working to daylight hours, to limit disturbance to nocturnal and crepuscular animals;
  - Due to the likely presence of Badgers, Breeding Birds and Bats the use of lighting at night should be avoided. If the use of lighting is essential, then a directional cowl should be fitted to all lights to prevent light spill and to be directed away from areas of woodland.



- Contractors must ensure that no harm comes to wildlife by maintaining the Site efficiently and clearing away materials which are not in use, such as wire or bags in which animals can become entangled; and
- Any pipes should be capped when not in use (especially at night) to prevent animals becoming trapped. Any excavations should be covered overnight to prevent animals from falling and getting trapped. If that is not possible, a strategically placed plank should be placed to allow animals to escape.

### *Biodiversity Enhancement*

6.11. The following enhancements have been recommended to provide an unquantified net gain in biodiversity in line with local planning policy objectives.

6.12. Measures for habitat compensation and enhancement and enhancement for individual species could build on the measures outlined in the previous section and include:

- new wildlife-friendly shrub and tree planting within areas of garden space;
- increasing floral diversity in areas of proposed grassland, potentially achieved either through plug planting and/or seeding with an appropriate mix for flowering lawns<sup>16</sup> and/or neutral soils;
- installation of log piles<sup>17</sup> and other refugia for amphibians and invertebrates;
- Supplementing the existing hedgerows to increase woody species diversity<sup>18</sup>;
- new scrub<sup>19</sup> and hedgerow<sup>20</sup> planting of at least three native woody species and
- provision of artificial bird nesting and bat roost boxes to be fixed to the new buildings and/or the retained mature trees, suitable boxes can be obtained from the Nestbox Company<sup>21</sup> or other reputable supplier. A total of four bird boxes and four bat boxes would be proportionate.

---

<sup>16</sup> [Flowering Lawn Mixture EL1 - Emorsgate Seeds \(wildseed.co.uk\)](http://wildseed.co.uk)

<sup>17</sup> [Hibernaculum – Froglife \(froglife.org\)](http://froglife.org)

<sup>18</sup> [Hedgerow management and wildlife – Hedgelink \(hedgelink.org.uk\)](http://hedgelink.org.uk)

<sup>19</sup> [Create scrub and scrub mosaics – DEFRA \(defrafarming.blog.gov.uk\)](http://defrafarming.blog.gov.uk)

<sup>20</sup> [Hedgerow planting – Natural England \(hedgelink.org.uk\)](http://hedgelink.org.uk)

<sup>21</sup> [Nesting Boxes for Birds, Bats, & Mammals, UK Manufacturer \(nestbox.co.uk\)](http://nestbox.co.uk)

## References

- Angus Meek Architects (2023). Indicative Site Layout. Redevelopment Option 1.2793 FQ1. AMA, Bristol.
- Biggs et al. (2014) *Analytical and methodological development for improved surveillance of the Great Crested Newt. Appendix 5. Technical advice note for field and laboratory sampling of great crested newt (Triturus cristatus) environmental DNA*. Freshwater Habitats Trust, Oxford.
- British Standards Institution (BSI) (2012) BS 5837:2012- *Trees in relation to design, demolition and construction*. BSI, London.
- British Standards Institution (2013) Biodiversity. Code of practice for planning and development: 42020. BSI, London.
- Biodiversity Reporting and Information Group (2008) *UK Biodiversity Action Plan Priority Habitat Descriptions*. JNCC. Peterborough.
- Butcher, B., Carey, P., Edmonds, R., Norton, L., and Treweek, J. (2020). *UK Habitat Classification – Habitat Definitions V1.1* at <http://ukhab.org.uk>
- CIEEM (2019) *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.
- CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal, 2nd edition*. Chartered Institute of Ecology and Environmental Management, Winchester.
- Co-ecology (2024) *Bat Surveys at Croxlea*. Unpublished.
- Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines*. 3rd edition. The Bat Conservation Trust, London.
- Connolly, S. & Charles, P. (2005) *Environmental good practice pocket book*. CIRIA, London.
- Eaton, M.A., Aebischer, N.J., Brown, A.F., Hearn, R.D., Lock, L., Musgrove, A.J., Noble, D.G., Stroud, D.A. and Gregory, R.D. (2015) Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man. *British Birds* 108, 708–746. <http://britishbirds.co.uk/wp-content/uploads/2014/07/BoCC4.pdf> [accessed 12 September 2022].
- Gent, T. and Gibson, S. (2003) *Herpetofauna Workers Manual*. JNCC, Peterborough.
- Langton, T.E.S., Beckett, C.L., and Foster, J.P. (2001) *Great Crested Newt Conservation. Handbook*. Froglife, Halesworth.
- MAGIC (2020) *Multi-Agency Geographic Information for the Countryside*. <http://www.magic.gov.uk/> [accessed 19 June 2023].
- Ministry of Housing, Communities and Local Government (2019). National Planning Policy Framework. Ministry of Housing, Communities and Local Government, London. Available from [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/810197/NPPF\\_Feb\\_2019\\_revised.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf).
- Natural England, Defra & Environment Agency (2019) [On-line]. *Environmental Management Guidance; Harmful Weeds and Invasive, Non-native Plants: Prevent them Spreading*. Available from <https://www.gov.uk/guidance/prevent-the-spread-of-harmful-invasive-and-non-native-plants#dispose-of-invasive-non-native-plants> [accessed September 2022].
- Oldham R.S., Keeble J. Swan M.J.S & Jeffcote M. (2000) *Evaluating the suitability for the Great Crested Newt (Triturus cristatus)*. *Herpetological Journal* 10(4), 143-155.
- Roper, T.J. (2010) *Badger*. Harper Collins, London.
- Stace, C.A. (2019) *New Flora of the British Isles* (4th Ed.). Cambridge University Press, Cambridge.

## Photographs

**Picture 1**

The front view of Building 1 residential bungalow property



**Picture 2**

Front gable end of bungalow property (Building 1) with small vent space leading to the internal void.



**Picture 3**

Double garage (Building 2) in the west of the site.



**Picture 4**

View of the garden space associated with the residential property, with double garage and line of Leyland cypress trees in the background.



**Picture 5**

Scattered coniferous trees within the garden space.



**Picture 6**

Disturbed area in the north with coniferous trees.



**Picture 7**

Building 3(dog kennels) to rear of residential property.



**Picture 8**

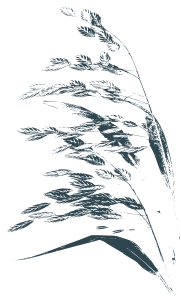
Shed (Building 4) in the garden space of the property.



# Plant Species List

**Table A.1** List of flowering plants recorded in the developable area of Croxlea, Parsonage Lane, Winford, Bristol, during a UK Habitats Survey in September 2022

Common	Latin	Abundance
Cherry laurel	<i>Prunus laurocerasus</i>	R
Cock's-foot	<i>Dactylis glomerata</i>	O
Daisy	<i>Bellis perrenis</i>	LF
Deodora cedar	<i>Cedrus deodar</i>	R
Dock spp.	<i>Rumex</i>	F
Dog rose	<i>Rosa canina</i>	O
False oat grass	<i>Arrhenatherum elatius</i>	LD
Groundsel	<i>Senecio vulgaris</i>	O
Hazel	<i>Corylus avellana</i>	O
Ivy	<i>Hedera helix</i>	A
Leyland cypress	<i>Leylandii cupressa</i>	LD
Maple	<i>Acer campestre</i>	O
Nettle	<i>Urtica dioica</i>	LF
Perennial rye grass	<i>Lolium perrene</i>	LD
Rhododendron	<i>Rhododenron ponticum</i>	O
Selfheal	<i>Prunella vulgaris</i>	LF
White clover	<i>Trifolium repens</i>	A
Yew	<i>Taxus baccata</i>	O
Yorkshire fog	<i>Holcus lanatus</i>	LF



# Co-ecology