

# Mearley Croft Clitheroe Ecological Assessment

Report Ref: 5103.002 April 2015

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#### **PAGE CONTENTS** INTRODUCTION ......1 1.0 2.0 SITE DESCRIPTION ......1 3.0 4.0 RESULTS......3 5.0 CONCLUSIONS ......8 RECOMMENDATIONS.......10 6.0 7.0 REFERENCES ......11

#### **APPENDICES**

Appendix 1: Desktop Study

Appendix 2: Bat and Bird Box Specification

#### **DRAWING**

G5103.001 Mearley Croft Phase 1 Habitat Survey

7025/P/002 Proposed Planning Layout



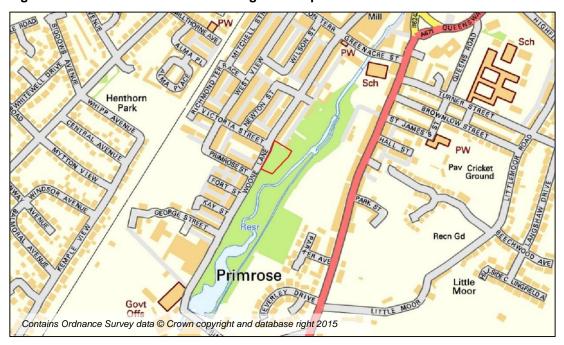
#### 1.0 INTRODUCTION

- 1.1 TEP was commissioned in April 2015 by Beck Developments to carry out an ecological assessment at Mearley Croft, a small patch of land off Woone Lane, Clitheroe, Lancashire. This assessment has been requested to inform planning proposals and this report has the following objectives:
  - to describe the existing vegetation and give an overview of the habitats present on the site;
  - to identify whether there are any features of conservation value such as legally protected species or habitats of biodiversity importance;
  - to advise of further surveys or mitigation requirements that may be needed prior to development of the site; and
  - to outline opportunities to provide biodiversity enhancement within site proposals.
- 1.2 The proposals are for small scale residential development (10 plots) at the site with associated landscaping. The site originally formed part of a wider development proposal which was granted full planning permission. Site investigation works subsequently found that the original proposals were untenable and as such a new planning application is proposed, which this report is to inform.
- 1.3 Site clearance works, including tree felling, have been completed at the current Mearley Croft site under the existing planning permission.

#### 2.0 SITE DESCRIPTION

2.1 The site is located off Woone Lane, Clitheroe. The central grid reference is SD 73949 41086. The survey area and site context is shown in Figure 1 below.







2.2 The site has been relatively recently cleared and comprises a mix of mostly low strimmed scrub habitat, rank vegetation, some tree regrowth from stumps and occasional woodland ground-flora. Woone Lane forms the western boundary of the site with residential development present to the north east and west. Woodland lies adjacent to the south and east boundaries of the site and continues southwards leading to and surrounding a very shallow, silted-up reservoir or lodge.

#### 3.0 METHODS

#### **Desktop Study**

3.1 Information regarding historic species records and protected sites within a 1km radius of the site was requested/gathered from the sources listed in Table 1.

Table 1: Ecological information and consultations

CONSULTEE/SOURCE OF INFORMATION	NATURE OF INFORMATION
Lancashire Environment Record Network	Statutory and non-statutory sites, protected and S.41 habitats/ species <sup>1</sup> , Local BAP priority habitats/species
Where's the Path	Location map
Natural England – Multi Agency Geographic Information on the Countryside (MAGIC) Map	Statutory protected sites
S.41 NERC Act (2006)	Habitats and Species of Principal Importance for the Conservation of Biodiversity
Lancashire County Council	Local Plan/Development Plan Information

#### **Habitat Survey**

- 3.2 The habitat survey was undertaken by TEP ecologist Val Gateley (MCIEEM, FISC level 5) on 23rd April 2015. The survey was carried out in accordance with the Guidelines for Preliminary Ecological Appraisal (IEEM 2012) and Phase 1 assessment methods (JNCC 2010) and gives an overview of key habitats and the potential of the site to support any species of conservation concern.
- 3.2 As part of the habitat survey the proposed development site was assessed for its potential to support bats with regards to roosting, foraging and commuting. A ground-based tree survey and external assessment of buildings was undertaken.

5103.002 Version 1.0 April 2015

<sup>&</sup>lt;sup>1</sup> Section 41 Species of Principal Importance of the Natural Environment and Rural Communities (NERC) Act, 2006.



- 3.3 The following features in trees can potentially provide roosting opportunities for bats:
  - Old woodpecker holes;
  - Splits or rot holes in trunk, bough or large branches;
  - Holes formed by two boughs or branches growing in contact;
  - Loose or lifting bark;
  - A covering of dense latticed creeper, usually ivy.
  - Dense epicormic growth
- 3.4 The Criteria for tree roost assessment is listed in Table 2 and based upon the Bat Conservation Trust (BCT) 'Bat Surveys: Good Practice Guidelines' (2012).

Table 2: Tree roost assessment criteria

Confirmed	A tree where positive signs are found; e.g. emerging bats, droppings found or pre-emergence sounds heard;		
Category 1*	Potential to support larger roosts and is situated in or near good foraging habitat or near a good commuting route leading to such habitat;		
Category 1	A tree that has definite features of potential for roosting bats, supporting fewer suitable features than Category 1* trees (above) or with potential for use by single bats but are less than ideal in some way, for example, may have cluttered access;		
Category 2			
Category 3	A tree that has no potential to support roosting bats.		

#### Limitations to Survey

3.3 The recommended period for Phase 1 habitat surveys is from April to mid-October. The survey at Mearley Croft was undertaken inside of this period and full access to the site was possible; therefore, there are no limitations to the survey.

#### 4.0 RESULTS

#### **Desktop Study**

4.1 Detailed desktop survey information is presented at Appendix 1. It should be noted that the LERN records are not comprehensive and an absence of records does not indicate the absence of protected species from the search area; however, our survey work has sought to identify the potential for any protected species.

#### Protected sites

- 4.2 No internationally or nationally designated sites are located within 1km of the site.
- 4.3 Two local Biological Heritage Sites (BHS) are within 1km of the proposed development site. Primrose Lodge falls within the site boundary and is designated due to the semi-natural broad-leaved woodland, including areas of wet woodland present and the associated native ground-flora species.



4.4 Clitheroe Castle Knoll lies 500m north of the site and is designated due to limestone rock outcrops and associated areas of limestone grassland and developing woodland below the castle.

#### Protected habitats

4.5 Section 41 habitats of principal importance lowland deciduous woodland and wet woodland border the site to the east and south.

#### Protected species and species of conservation concern

#### Bats

4.6 European protected species common pipistrelle bat is recorded 570m northwest of the site.

#### Birds

4.7 There are numerous BoCC<sup>2</sup> recorded within the wider landscape. Table 3 lists the species recorded that may use the site for nesting or foraging.

Table 4: BoCC recorded in the wider landscape that may utilise the site

Species	Potential for	Potential for
	foraging on site?	nesting on site?
Black-headed Gull	N	N
Common Sandpiper	N	N
Curlew	N	N
Dunnock	Y	Y
Grey Partridge	N	N
House Martin	Y	N
House Sparrow	Y	Y
Kestrel	Y	N
Kingfisher	N	N
Lapwing	N	N
Little Ringed Plover	N	N
Oyster Catcher	N	N
Pochard	N	N
Redshank	N	N
Sand Martin	N	N
Song Thrush	Y	Υ
Starling	Y	N
Swallow	Y	N
Swift	N	N
Teal	N	N
Wigeon	N	N
Willow Warbler	Y	Υ

#### Fish

4.8 A range of S41 and Lancashire Biodiversity Action Plan (BAP) priority fish species within the wider landscape (approximately 700m north and south of the site). Species recorded include Bullhead, Atlantic salmon and brown trout, none have been recorded on or immediately adjacent to the site but are associated with Mearley Brook which passes through the woodland habitat 30m to the east of the site site.

5103.002 4 April 2015 Version 1.0

<sup>&</sup>lt;sup>2</sup> Bird of Conservation Concern (British Trust for Ornithology, 2009)



#### **Plants**

- 4.9 A range of S41 and local BAP priority plant species within the wider landscape, none have been recorded on or immediately adjacent to the site.
- 4.10 Full desktop information is presented in Appendix 1.

#### Local Plan

4.11 The site is within the administrative boundary of Lancashire County Council and is designated as a Potential Residential Area.

#### **Habitat Survey**

- 4.12 The results of the habitat survey are illustrated in Drawing G5103.001 with a species list provided in Table 4 below. The following paragraphs provide a summary of the habitat survey.
- 4.13 The following habitats are present within, or adjoining, the site:
  - Scattered scrub
  - Tall ruderal herbs
  - Modified neutral grassland <sup>3</sup>
  - Dense scrub
  - Scattered broad-leaved trees
- 4.14 The gently sloping parcel of land comprising the site is dominated by a mosaic of scattered scrub, tall ruderal herbs and modified neutral grassland. Relatively recent clearance work has been undertaken across the majority of the site, with trees cleared to ground level and remaining vegetation strimmed to a low level.
- 4.15 Abundant bramble *Rubus fruticosus* agg. scrub is present, with frequent tall ruderal herb species including great willowherb *Epilobium hirsutum*, rosebay willowherb *Chamerion angustifolium* and butterbur *Petasites hybridus*. Modified neutral grassland species false oat-grass *Arrhenatherum elatius*, creeping buttercup *Ranunculus repens*, creeping bent *Agrostis stolonifera* and cock's-foot *Dactylis glomerata* occur occasionally.
- 4.16 Some species associated with woodland ground-flora were also present amongst this mosaic habitat. these include lesser celandine *Ranunculus ficaria*, bearded couch *Elymus caninus*, hedge woundwort *Stachys sylvatica*, remote sedge *Carex remota* and pendulous sedge *Carex pendula* The land becomes damper towards the bottom of the slope where pendulous sedge, butterbur and creeping buttercup become more abundant. Additionally, some tree stumps sprouting new shoots were also noted, including sycamore *Acer psuedoplatanus* and wych elm *Ulmus glabra*.

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<sup>&</sup>lt;sup>3</sup> The neutral grassland categories detailed within the Phase 1 Habitat Survey Handbook are concentrated on grassland associated with rural situations (pastures and meadows), as such it was agreed with JNCC in 2005 (P. Gateley, *pers. comm.*) that neutral grassland habitats that don't easily fit within these categories, usually within urban or industrial areas, can be referred to as modified neutral grassland –

<sup>&#</sup>x27;Modified neutral grassland is not derived from agricultural grassland and the terms semi-improved and improved do not apply. Some modified neutral grassland may be species-rich but many swards are dense, coarse and species-poor. Modified neutral grassland naturally regenerates on disturbed ground and is unmanaged. It most commonly occurs in urban areas and on post-industrial land'.



4.17 Table 4 details Target Note 1 which lists the species present in the above described mosaic habitat and their abundance.

**Table 4: Target Note 1** 

Scientific Name	Common Name	Frequency
Rubus fruticosus agg.	Bramble	A
Carex pendula	Pendulous Sedge	F
Epilobium hirsutum	Great Willowherb	F
Petasites hybridus	Butterbur	F
Ranunculus repens	Creeping Buttercup	F
Acer pseudoplatanus	Sycamore	0
Agrostis stolonifera	Creeping Bent	0
Anthriscus sylvestris	Cow Parsley	0
Arrhenatherum elatius	False Oat-grass	0
Cardamine hirsuta	Hairy Bitter-cress	0
Chamerion angustifolium	Rosebay Willowherb	0
Cirsium arvense	Creeping Thistle	0
Dactylis glomerata	Cock's-foot	0
Elymus caninus	Bearded Couch	0
Festuca rubra	Red Fescue	0
Ficaria verna	Lesser Celandine	0
Galium aparine	Cleavers	0
Geum urbanum	Wood Avens	0
Holcus lanatus	Yorkshire-fog	0
Impatiens glandulifera	Himalayan Balsam	0
Lolium perenne	Ryegrass	0
Poa annua	Annual Meadow-grass	0
Rumex obtusifolius	Broad-leaved Dock	0
Salix species	Willow species	0
Stachys sylvatica	Hedge Woundwort	0
Taraxacum officinale agg.	Dandelion	0
Tussilago farfara	Colt's-foot	0
Urtica dioica	Nettle	0
Arum maculatum	Lords-and-Ladies	R
Cardamine flexuosa	Wavy Bitter-cress	R
Carex remota	Remote Sedge	R
Fallopia japonica	Japanese Knotweed	R
Fraxinus excelsior	Ash	R
Glechoma hederacea	Ground-ivy	R
Hedera helix	lvy	R
Hyacinthoides x massartiana	Hybrid Bluebell	R
Phalaris arundinacea	Reed Canary-grass	R
Ribes rubrum	Redcurrant	R
Ribes uva-crispa	Gooseberry	R
Rubus idaeus	Raspberry	R
Trifolium pratense	Red Clover	R
Trifolium repens	White Clover	R
Ulmus glabra	Wych Elm	R

KEY - D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare

#### Dense scrub

4.18 There is an un-strimmed, bramble dominated strip (up to 2m high and 3m wide) of vegetation along the southern edge of the site bordering the existing woodland habitat, young ash *Fraxinus excelsior* regeneration is also present within the scrub.



#### Scattered broad-leaved trees

4.19 Four middle-aged ash and sycamore trees are present within the south east corner of the site.

#### Invasive and protected plant species

- 4.20 No protected plant species were observed on site.
- 4.21 Invasive species Himalayan balsam *Impatiens glandulifera* and Japanese knotweed *Fallopia japonica* were recorded on site. Scattered Himalayan balsam seedlings were recorded within the southeast of the site. Two small stands of Japanese knotweed were recorded on site, one single stemmed stand and one two stemmed stand, adjacent to western roadside boundary. Approximate invasive species locations are shown in drawing G5103.001.

#### Connectivity with the wider landscape

4.22 The site lies on the southern edge of the residential area of Clitheroe with limited connectivity to the north, east and west. Broad-leaved woodland borders the southern and eastern boundaries of the site. This woodland in conjunction with Mearley Brook provides good connective habitat to the open countryside/farmland in the wider landscape to the south which also include two small reservoirs.

#### Fauna

#### **Amphibians**

- 4.23 There is no potential amphibian breeding habitat onsite. During the survey visit on 23rd April 2015 ephemeral pooling was evident amongst willow trees/woodland within 20m of the east boundary but no standing water was present, just bare silt/mud. A reservoir lies 120m south of the site. This was nearly dry during the survey visit with wide banks of soft bare silt; these features offer only limited potential for common frog, early in the year.
- 4.24 Habitats within the site boundary, being predominantly low bramble scrub and rank vegetation, offer some limited refuge, foraging and commuting potential for amphibian species. Adjacent woodland to the south provides good refuge, foraging and commuting habitat for amphibians.

#### <u>Badger</u>

4.25 The habitats on site offer some limited foraging potential for badger with greater potential provided by the adjacent woodland habitat. No large mammal hole/s or other evidence of badger was identified during the site survey.

#### <u>Bats</u>

4.26 The four middle aged ash and sycamore trees on site offer no roosting opportunities for bats as they lack suitable features such as cracks and crevices as such qualify as category 3 bat roost potential trees. These trees do offer some limited foraging and commuting potential for bats (only for a short distance). The immediately adjacent woodland habitat provides good foraging and commuting potential for bats.



#### Birds

- 4.27 The four middle aged trees in the south east corner and the tall, dense bramble scrub along the southern boundary of the site offer nesting opportunities for birds. These habitats and the mosaic habitat present across the majority of the site provide potential foraging habitat for a range of common bird species.
- 4.28 The mosaic habitat of low bramble, tall ruderal herbs and grasses is considered unsuitable for ground nesting species due the level of disturbance from the adjacent road. The presence of potential perching opportunities for predatory birds in the form of adjacent woodland and buildings would also discourage ground-nesting birds.

#### Water vole/otter

4.29 There are no habitats on or immediately adjacent to the site suitable to support water vole/otter.

#### <u>Fish</u>

4.30 There are no habitats on or immediately adjacent to the site suitable to support fish. Potential habitat for fish, Mearley Brook, lies 30m east of the site.

#### 5.0 CONCLUSIONS

#### Site Proposals

5.1 Three blocks of residential housing are proposed with associated access road, parking and landscaping. The Planning Layout is shown within the drawings section of this report (Ref: 7025/P002).

#### Site designations

- Primrose Lodge BHS falls within the development site boundary and the habitat for which it is designated borders the boundary of the proposed development. As such development of the site could have a detrimental effect upon the habitat within the BHS. Recommendations detailing measures to ensure there is no detrimental effect are provide in section 6.0.
- 5.3 Clitheroe Castle Knoll BHS is considered to be a sufficient distance from the proposed development site. Future development works will not result in any detrimental effect upon this site.

#### Habitats

- 5.4 The mosaic habitat comprising the majority of the site has a reasonably diverse mix of species (including scrub and tall ruderal and grassland species) and delivers some ecological value, providing potential foraging and refuge habitat for range of small mammals, birds and invertebrate species. Current proposals indicate that this habitat will be lost to facilitate the development. Recommendations of how biodiversity can be maintained and enhanced through development of the site are provided in section 6.0.
- 5.5 S41 habitat of principal importance lowland deciduous woodland and wet woodland lies adjacent to the site. As such development of the site could have a detrimental effect upon this S41 habitat. Recommendations detailing measures to ensure there is no detrimental effect are provide in section 6.0.



#### Invasive and protected plant species

No protected plant species were noted during the survey. However, invasive species were recorded on site. Scattered Himalayan balsam seedlings were recorded within the southeast of the site. Two small stands of Japanese knotweed were recorded on site, one single stemmed stand and one two stemmed stand, adjacent to western roadside boundary. Prior to commencement of works these species will need to have been eradicated from site. A method statement detailing the eradication/control measures of these invasive species will need to be produced and adhered to.

#### **Amphibians**

- There are no records of amphibians within 1km of the site. There is no potential breeding habitat on site. Habitats within the site boundary, offer some limited foraging and commuting potential for amphibian species. The area with ephemeral pooling 20m from the eastern boundary was dry during the survey in April and the reservoir, 120m south of the site, was very shallow with wide mud shores and no aquatic vegetation evident.
- 5.8 The site has potential for terrestrial use by amphibians but there is no standing water on site. There are no significant implications with regard to amphibians and the proposed development but mitigation measures could be put in place to limit impacts on animals during development works.

#### <u>Badger</u>

5.9 No records of badger were identified within 1km of the site. No evidence of badgers was noted during the survey and there are no records of badger within 1km of the site. There are no implications for the development with regard to badger.

#### <u>Bats</u>

- 5.10 A single record of common pipistrelle was recorded 570m northwest of the site. The four trees onsite qualify as category 3 bat roosting potential, as such offer no roosting potential for bats. These trees are to be removed to allow for the proposed development. Due to the small scale of this tree loss it is considered that this will have no detrimental effect on local bat foraging/commuting potential. The mosaic habitat and dense scrub offer no suitable habitat for roosting bats and offers only limited potential for foraging and commuting.
- 5.11 There are no implications with regards to development of the site in relation to loss of onsite habitats and bats. However, proposals will need to ensure the protection of the off-site habitat which provides potential for bats.

#### Birds

- The area of dense bramble scrub and trees in the south and east of the site provide nesting and foraging potential for a range of bird species. The mosaic habitat provides some foraging potential but it is unlikely to be suitable for ground nesting bird species due to the locality of potential perches for predatory birds. However if the bramble scrub in this area is allowed to grow, it will offer nesting opportunities for a range of common bird species.
- 5.13 All wild UK nesting birds, their nests and eggs are protected under the *Wildlife and Countryside Act 1981* (as amended). It is an offence to intentionally or recklessly, damage or destroy nests so all vegetation work should be undertaken outside the bird nesting season (March to August inclusive). There may be timing implications if removal of this dense scrub is required due to the potential of this habitat for nesting birds.



#### Water vole/otter

5.14 There are no suitable habitats on or immediately adjacent to the site suitable to support water vole or otter; therefore, there are no implications for development of the site with regard to these species.

#### Fish

5.15 Mearley Brook lies 30m from the site boundary and has records for S41 and Local BAP fish species, Atlantic salmon, brown trout and bullhead. It is understood that no outfall is proposed into this brook and provided works do not come within 8m of the top of the bank it is considered that there will be no implications with regards to development of the site and fish.

#### 6.0 RECOMMENDATIONS

- 6.1 Adjacent to the southern boundary of the site is Primrose Lodge BHS, designated for its woodland habitat. To ensure the protection of this BHS the trees along the boundary with the proposed development site should be protected during construction works, with appropriate root protection areas adhered to. Please see the Arboricultural Impact Assessment TEP reference: 5103.01.001. Additionally the use of native woodland planting were landscaping meets the BHS boundary should be used to limit the chances of the spread of non-native species into the woodland.
- To prevent impacts on amphibians any vegetation removal works should be undertaken during the active amphibian season (March to October inclusive). Removal of potential amphibian refugia such as old tree roots should be completed under the supervision of an ecologist and any amphibians found will be moved to offsite shelter. No great crested newts are recorded in the area and it is considered very unlikely they occur on or adjacent to the site. However, in the unlikely event a great crested newt is found during works, it may be necessary to obtain a licence from Natural England in order to complete works.
- 6.3 If works affecting areas of dense scrub habitat in the south of the site or the middle aged trees in the southwest corner are required during the bird nesting season, a suitably qualified ecologist should inspect the tree no more than 24 hours in advance of works to ensure that no nesting birds are present.
- 6.4 If nesting birds are found to be present an exclusion zone will need to be set up and works delayed until nesting is completed (i.e. until young have fledged). The ecologist will regularly monitor the nest and advise the contractors when works can proceed.
- To optimise the proposed landscaping, in terms of its potential to support a range of faunal species (including mammals, amphibians, birds, reptiles and invertebrates), planting should ideally provide a good structural diversity, with a mix of native trees and berry forming shrubs being provided (e.g. hawthorn, blackthorn, elder, oak, hazel). Use of wild flower seed mixes within landscaping would also attract more wildlife to the site.
- The adjacent woodland habitat provides potential foraging and commuting habitat for bats. To ensure this potential is maintained, it is recommended that a lighting scheme, both temporary (during construction) and permanent (post-development) is generated that minimises light levels along the hedgerow and trees. This should aim to include the use of low pressure sodium lamps as far as possible, with lighting directed



downwards and preferably restricted to selected areas by fitting hoods which direct the light below the horizontal plane. Illumination of the canopies of the mature trees should be avoided. If it is not possible to use low pressure sodium lamps and mercury lamps must be used, these should be fitted with UV filters.

6.7 Additional opportunities for bats and birds could be provided through the use of bat and bird boxes on suitable adjacent trees, and on any buildings proposed for erection on site. It is considered that the provision of two bat boxes and two bird boxes would be suitable for the proposed development. Examples of site suitable bat and bird box designs are presented at Appendix 2.

#### 7.0 REFERENCES

HUNT L (2012) Bat surveys: Good Practice Guidelines, 2nd Edition, Bat Conservation Trust.

JOINT NATURE CONSERVATION COMMITTEE (2010) Phase 1 Habitat Survey. JNCC. Peterborough

JOINT NATURE CONSERVATION COMMITTEE (2004) Bat Worker's Manual. 3<sup>rd</sup> Edition. JNCC

APPENDIX 1: Desktop Study



### **Desk Based Ecology Assessment**

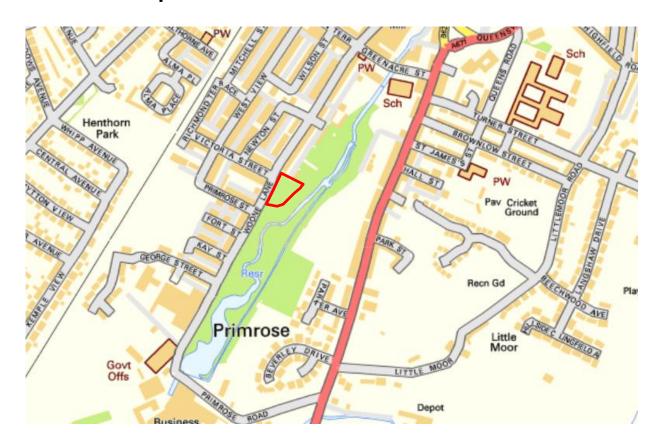
# Mearley Croft Clitheroe Approximate Central Grid Reference: SD 73951 41118

#### **Contents**

- Site location plan
- Extract from local plan
- Extracts of relevant planning policies
- Local site designations
- Local species records
- National site designations
- Habitat inventory records
- Wildlife site citations



## Site location plan



Contains Ordnance Survey data © Crown copyright and database right 2015



### Extract of Ribble Valley Borough Council Adopted Core Strategy (adopted Dec 2014) and supporting key







# Extracts of relevant planning policies and supplementary planning guidance

#### **KEY STATEMENT EN4: BIODIVERSITY AND GEODIVERSITY**

The Council will seek wherever possible to conserve and enhance the area's biodiversity and geodiversity and to avoid the fragmentation and isolation of natural habitats and help develop green corridors. Where appropriate, cross-Local Authority boundary working will continue to take place to achieve this. Negative impacts on biodiversity through development proposals should be avoided. Development proposals that adversely affect a site of recognised environmental or ecological importance will only be permitted where a developer can demonstrate that the negative effects of a proposed development can be mitigated, or as a last resort, compensated for. It will be the developer's responsibility to identify and agree an acceptable scheme, accompanied by appropriate survey information, before an application is determined. There should, as a principle be a net enhancement of biodiversity.

#### These sites are as follows:

- Sites of Special Scientific Interest (SSSIs)
- Local Nature Reserves (LNRs)
- Local Biological Heritage sites (CBHs)
- Special Areas of Conservation (SACs) and Special Protection Areas (SPAs)
- Local Geodiversity Heritage Sites
- Ancient Woodlands
- Lancashire Biodiversity Action Plan priority habitats and species
- European Directive on Protected Species and Habitats Annexe 1 Habitats and Annexe II Species
- Habitats and Species of Principal Importance in England

With respect to sites designated through European legislation the Authority will be bound by the provisions of the relevant Habitats Directives and Regulations. For those sites that are not statutorily designated and compensation could be managed through a mechanism such as biodiversity off-setting via conservation credits.

#### POLICY DME3: SITE AND SPECIES PROTECTION AND CONSERVATION

Development proposals that are likely to adversely affect the following will not be granted planning permission. Exceptions will only be made where it can clearly be demonstrated that the benefits of a development at a site outweigh both the local and the wider impacts. Planning conditions or agreements will be used to secure protection or, in the case of any exceptional development as defined above, to mitigate any harm, unless arrangements can be made through planning conditions or agreements to secure their protection:

- 1. Wildlife species protected by law
- 2. SSSI's
- 3. Priority habitats or species identified in the Lancashire Biodiversity Action Plan
- 4. Local Nature Reserves

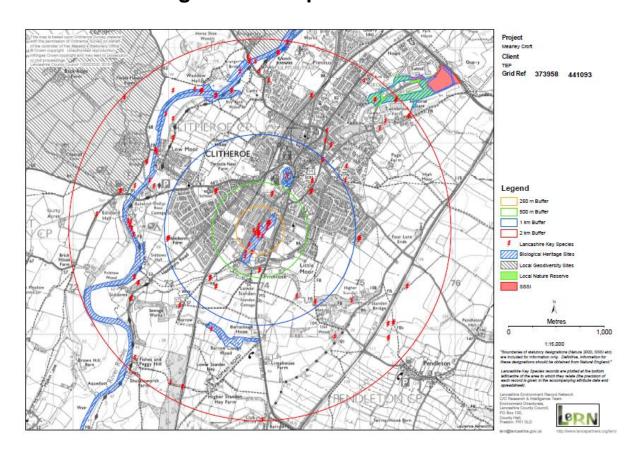


- 5. County Biological Heritage
- 6. Special Areas Of Conservation (SACs)
- 7. Special Protected Areas (SPAs)
- 8. Any acknowledged nature conservation value of sites or species.

Developers are encouraged to consider incorporating measures to enhance biodiversity where appropriate that will complement priority habitats and species identified in the lancashire bap. With regard to sites designated under european legislation the authority will follow the relevant processes as defined within the habitats regulations 2010. Development will not be permitted unless either it is established that it is not likely to have a significant effect on any ramsar site or natura 2000 site (including special protection areas, potential special protection areas, special areas of conservation, candidate special areas of conservation), either alone or in combination with other projects, or it is ascertained, following appropriate assessment, that it will not adversely affect the integrity of any ramsar site or natura 2000 site. The habitats regulations include provision for development which may cause an adverse effect on integrity to be allowed under exceptional circumstances. These include where there are no alternative solutions, imperative reasons of overriding public interest can be demonstrated and appropriate compensatory measures are implemented. In terms of the protection of the soil resource and high quality agricultural land development and land management practices should seek to avoid soil erosion; avoid contamination of land and promote restoration, protect the peat resource and recognise the importance of peat in particular for its carbon sequestration value, water quality improvements for both drinking water and biodiversity, reduction of local flood risk and reduction of moorland wildfire risk. The important link between soil quality, the natural environment and the landscape should be recognised.



# Map provided by Lancashire Environment Record Network of site designations & species records within 2km





# Data provided by Lancashire Environment Record Network of species records within 2km

COMMON NAME	TAXON NAME	GRIDREF	YEAR
Bats	Chiroptera	SD733425	1998
Bats	Chiroptera	SD733425	2006
Bats	Chiroptera	SD733425	2000
Bats	Chiroptera	SD733425	2003
Bats	Chiroptera	SD733425	2004
Bats	Chiroptera	SD733425	2007
Bats	Chiroptera	SD733425	2011
Bats	Chiroptera	SD733425	1998
Bats	Chiroptera	SD733425	2010
Bats	Chiroptera	SD733425	2003
Bats	Chiroptera	SD733425	2004
Bats	Chiroptera	SD733425	2008
Bats	Chiroptera	SD733425	2010
Bats	Chiroptera	SD733425	1998
Bats	Chiroptera	SD733425	2011
Bats	Chiroptera	SD733425	2009
Bats	Chiroptera	SD733425	2004
Bats	Chiroptera	SD733425	2006
Bats	Chiroptera	SD733425	2009
Bats	Chiroptera	SD733425	2000
Bats	Chiroptera	SD733425	2000
Bats	Chiroptera	SD733425	2010
Bats	Chiroptera	SD733425	2009
Bats	Chiroptera	SD733425	2008
Bats	Chiroptera	SD733425	2007
Bats	Chiroptera	SD733425	2010
Bats	Chiroptera	SD733425	2003
Bats	Chiroptera	SD733425	2007
Bats	Chiroptera	SD733425	2009
Bats	Chiroptera	SD733425	2009
Bats	Chiroptera	SD733425	2009
Bats	Chiroptera	SD733425	2010
Bats	Chiroptera	SD733425	2004
Bats	Chiroptera	SD733425	2008
Bats	Chiroptera	SD733425	2008
Bats	Chiroptera	SD733425	2007
Bats	Chiroptera	SD733425	2006
Bats	Chiroptera	SD733425	2006
Bats	Chiroptera	SD733425	1998
Bats	Chiroptera	SD733425	2000
Bats	Chiroptera	SD733425	2003
Bats	Chiroptera	SD733425	2010
Bats	Vespertilionidae	SD74644202	2007
Black-headed Gull	Chroicocephalus ridibundus	SD73804080	2008
Bullfinch	Pyrrhula pyrrhula	SD75164245	1993
Common Sandpiper	Actitis hypoleucos	SD74F	1999



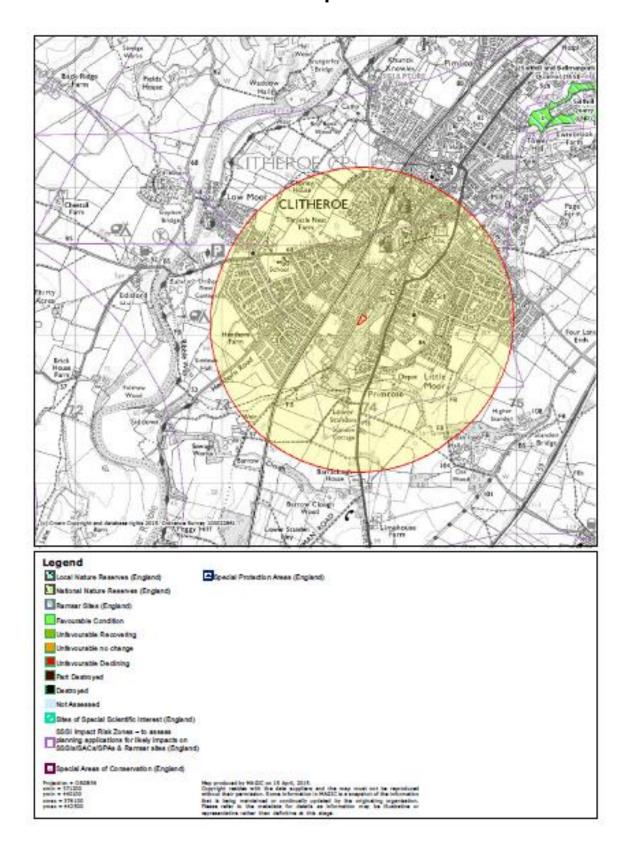
COMMON NAME	TAXON NAME	GRIDREF	YEAR
Curlew	Numenius arquata	SD74F	1999
Curlew	Numenius arquata	SD74K	1999
Daubenton's Bat	Myotis daubentonii	SD733425	2000
Daubenton's Bat	Myotis daubentonii	SD733425	2000
Daubenton's Bat	Myotis daubentonii	SD733425	2009
Daubenton's Bat	Myotis daubentonii	SD733425	2006
Daubenton's Bat	Myotis daubentonii	SD733425	2011
Daubenton's Bat	Myotis daubentonii	SD733425	2009
Daubenton's Bat	Myotis daubentonii	SD733425	2009
Daubenton's Bat	Myotis daubentonii	SD733425	2009
	•		
Daubenton's Bat	Myotis daubentonii	SD733425	2010
Daubenton's Bat	Myotis daubentonii	SD733425	2010
Daubenton's Bat	Myotis daubentonii	SD733425	2003
Daubenton's Bat	Myotis daubentonii	SD733425	2010
Daubenton's Bat	Myotis daubentonii	SD733425	2006
Daubenton's Bat	Myotis daubentonii	SD733425	2000
Daubenton's Bat	Myotis daubentonii	SD733425	2003
Daubenton's Bat	Myotis daubentonii	SD733425	2009
Daubenton's Bat	Myotis daubentonii	SD733425	2009
Daubenton's Bat	Myotis daubentonii	SD733425	2007
Daubenton's Bat	Myotis daubentonii	SD733425	2008
Daubenton's Bat	Myotis daubentonii	SD733425	2006
Daubenton's Bat	Myotis daubentonii	SD733425	2003
Daubenton's Bat	Myotis daubentonii	SD733425	2004
Daubenton's Bat	Myotis daubentonii	SD733425	1998
Daubenton's Bat	Myotis daubentonii	SD733425	2011
Daubenton's Bat	Myotis daubentonii	SD733425	2010
Daubenton's Bat	Myotis daubentonii	SD733425	2008
Daubenton's Bat	Myotis daubentonii	SD733425	2007
Daubenton's Bat	Myotis daubentonii	SD733425	1998
Daubenton's Bat	Myotis daubentonii	SD733425	2004
Daubenton's Bat	Myotis daubentonii	SD733425	2010
Daubenton's Bat	Myotis daubentonii	SD733425	1998
Daubenton's Bat	Myotis daubentonii	SD733425	2010
Daubenton's Bat	Myotis daubentonii	SD733425	2008
Daubenton's Bat	Myotis daubentonii	SD733425	1998
Daubenton's Bat	Myotis daubentonii	SD733425	2009
Daubenton's Bat	Myotis daubentonii	SD733425	2008
Daubenton's Bat	Myotis daubentonii	SD733425	2000
Daubenton's Bat	Myotis daubentonii	SD733425	2007
Daubenton's Bat	Myotis daubentonii	SD733425	2004
Daubenton's Bat	Myotis daubentonii	SD733425	2003
Daubenton's Bat	Myotis daubentonii	SD733425	2007
Daubenton's Bat	Myotis daubentonii	SD733425	2006
Dunnock	Prunella modularis	SD74F	1999
Dunnock	Prunella modularis	SD74K	1999
Dunnock	Prunella modularis	SD73944109	2008
Eurasian Badger	Meles meles	SD728415	1999
European Otter	Lutra lutra	SD7535740117	2011
European Water Vole	Arvicola amphibius	SD7333740117	1969



COMMON NAME	TAXON NAME	GRIDREF	YEAR
Grey Partridge	Perdix perdix	SD74F	1999
House Martin	Delichon urbicum	SD74F	1999
House Martin	Delichon urbicum	SD74K	1999
House Sparrow	Passer domesticus	SD74F	1999
House Sparrow	Passer domesticus	SD74K	1999
Kestrel	Falco tinnunculus	SD74F	1999
Kestrel	Falco tinnunculus	SD74K	1999
Kingfisher	Alcedo atthis	SD74F	1999
Kingfisher	Alcedo atthis	SD739410	1992
Lapwing	Vanellus vanellus	SD74F	1999
Lapwing	Vanellus vanellus	SD75384245	1992
Lesser Redpoll	Acanthis cabaret	SD75384245	1992
Little Ringed Plover	Charadrius dubius	SD74F	1999
Oystercatcher	Haematopus ostralegus	SD74F	1999
Oystercatcher	Haematopus ostralegus	SD741429	2005
Pipistrelle	Pipistrellus pipistrellus	SD7241	1986
Pipistrelle	Pipistrellus pipistrellus	SD7341	1986
Pipistrelle	Pipistrellus pipistrellus	SD722412	2005
Pipistrelle	Pipistrellus pipistrellus	SD7505142651	2012
Pipistrelle	Pipistrellus pipistrellus	SD7312240296	2014
Pipistrelle	Pipistrellus pipistrellus	SD7312240296	2014
Pochard	Aythya ferina	SD739410	1992
Redshank	Tringa totanus	SD74F	1999
Redwing	Turdus iliacus	SD75384245	1992
Sand Martin	Riparia riparia	SD74F	1999
Song Thrush	Turdus philomelos	SD74K	1999
Song Thrush	Turdus philomelos	SD74F	1999
Song Thrush	Turdus philomelos	SD740426	2005
Song Thrush	Turdus philomelos	SD75384245	1992
Soprano Pipistrelle	Pipistrellus pygmaeus	SD730420	2011
Soprano Pipistrelle	Pipistrellus pygmaeus	SD730420	2011
Spotted Flycatcher	Muscicapa striata	SD74K	1999
Starling	Sturnus vulgaris	SD74K	1999
Starling	Sturnus vulgaris	SD74F	1999
Swallow	Hirundo rustica	SD74K	1999
Swallow	Hirundo rustica	SD74F	1999
Swallow	Hirundo rustica	SD75384245	1992
Swift	Apus apus	SD74K	1999
Swift	Apus apus	SD74F	1999
Swift	Apus apus	SD742416	2004
Swift	Apus apus	SD75384245	1992
Teal	Anas crecca	SD739410	1992
West European Hedgehog	Erinaceus europaeus	SD7486841755	2010
Wigeon	Anas penelope	SD739410	1992
Willow Warbler	Phylloscopus trochilus	SD74K	1999
Willow Warbler	Phylloscopus trochilus	SD74F	1999
Willow Warbler	Phylloscopus trochilus	SD72684053	2004
Willow Warbler	Phylloscopus trochilus	SD75384245	1992



# Magic Map 1km search zone for designated wildlife sites - Map





# Magic Map 1km search zone for designated wildlife sites - Report

No designated sites within area.

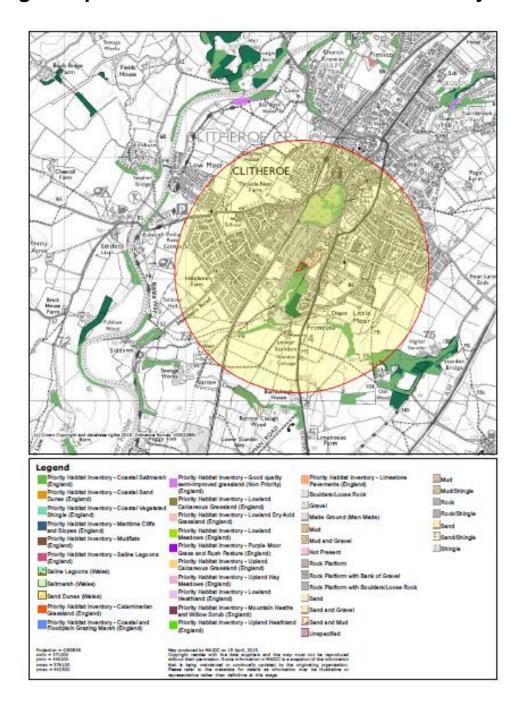


### Magic Map search for SSSI Impact Risk Zones for site only

No SSSI Impact Zones relating to site.



### Magic Map 1km search zone for habitat inventory data





### **Wildlife Site Citations**

# **Lancashire County Heritage Sites Biological Heritage Site**

#### Primrose Lodge



#### Site Boundary

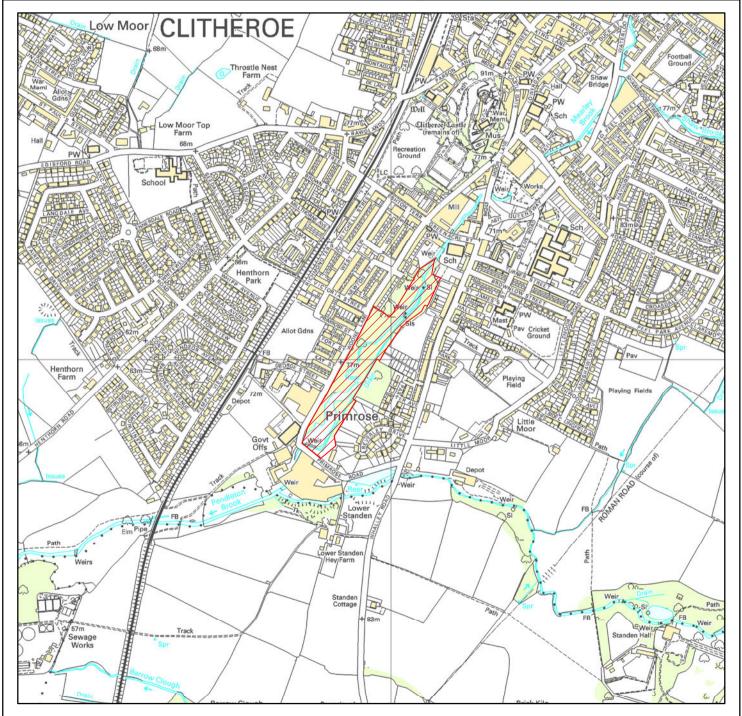
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This map shows only the boundary of the Biological Heritage Site named above. It does not show any other designated sites which may occur within the area covered by the map.

**Ref No.** 74SW03

#### Biological Heritage Sites Partnership

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Grid ref. SD739410	<b>Scale</b> 1:10,000	AV.
Site approved	<b>Map</b> 1 of 1	wildlife
Boundary revised	Date of Map 29/09/14	LANCASHIRE MANCHESTER N. MERSEYSIDE







### **Lancashire County Heritage Sites**

## **Biological Heritage Site**

Biological Heritage Sites Partnership:

 Lancashire County Council
 Wildlife Trust for Lancashire Natural England

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Site Name: Primrose Lodge

Site Ref: 74SW03 Approved: 08 September 1993

Area (ha): 4.27 Date written/last updated: 01 June 2013

Grid Ref: SD739410 Owner/Occupier:

**Districts:** Parishes: Ribble Valley Clitheroe

#### **Description:**

The site comprises the lodge for the former Primrose Print Works, created by the damming of Mearley Brook, and adjacent semi-natural broadleaved woodland. The site supports the largest known colony of Green Figwort, a nationally scarce species in the Ribble Valley.

The northern section of the site comprises of Mearley Brook and a sluice system lined by a strip of Alder trees with a ground flora that includes Opposite-leaved Golden-saxifrage, Remote Sedge, Lords-and Ladies, Ramsons, Herb Robert, Lesser Celandine, Wood Avens, Wood Speedwell, Marsh Marigold, Enchanter's Nightshade, Tufted Hair-grass, Common Male-fern, False Brome, Hairy Brome, Wood Dock, Bearded Couch, Harts-tongue, Creeping Jenny, Bistort, Germander Speedwell and Primrose with Pendulous Sedge, Large Bitter-cress Water Forget-me-not, Brooklime and Branched Bur-reed along the watercourses. A small population of Green Figwort is present. Adjoining damp tall herb communities include Butterbur, Meadowsweet, Hogweed, Great Willowherb, Reed Canary-grass, Cow Parsley, Rosebay Willowherb, Cleavers, Broad-leaved Dock, Hard Rush, Creeping Buttercup, Common Ragwort and Bramble. Bryophytes along the sluice include *Conochepalum conicum* and *Thamnobryum alopecurum*.

The sloping valley sides above the lodge are relatively dry and support semi-mature broadleaved woodland dominated by Ash and Sycamore with occasional Wych Elm, Wild Cherry, Rowan, Beech, Norway Maple, Horse Chestnut, Lime and Hornbeam with an uderstorey of Ash, Hawthorn, Elder, Hazel, Holly and Wych Elm. The ground flora is variable with locally dominant lvy, Bramble and Cow Parsley and Bluebell. The steeper banks above the lodge are more diversity with Guelder Rose, Field Rose, Hazel, Black Bryony, Hart's-tongue, Lords-and-Ladies, Bluebell, Enchanter's-nightshade, Herb Bennet, Woodruff, Tutsan, Dog's Mercury, Lesser Celandine, False Brome, Wood Sedge, Bluebell, Bugle, Scaly Male-fern and bryophytes. Established non-native invasive species include locally abundant Bramble (Himalayan Giant) and Japanese Knotweed.

An extensive area of wet woodland, a UK Priority Habitat, dominated by Alder and Willow has developed on the silted-up section of the lodge. The understorey includes Elder, Red Currant and Black Currant. The ground flora includes Large Bitter-Cress, Lesser Celandine, Marsh Marigold, Common Nettle, Water Forget-Me-Not, Meadowsweet, Ramsons, Reed Canary-Grass, Pendulous Sedge, Remote Sedge, Opposite-Leaved Golden-Saxifrage, Ground-Elder, Bog Stitchwort, Wavy Bitter-Cress, Water-Plantain, Water Mint, Wood Speedwell, Yellow Iris, Garlic Mustard, Bittersweet, Butterbur, Brooklime, Creeping Buttercup and an abundance of Indian Balsam. Of particular note is Green Figwort which is locally abundant at the western side of the lodge. The wet woodland micro-climate provides suitable conditions for epiphytic Polypody and bryophytes the latter growing profusely on tree trunks and branches.

During summer months when the water levels are low the bare mud is colonised by Reed Canary-grass, Water Forget-me-not, Water Mint, Purple Loosestrife and saplings of Osier, Grey Willow and Crack Willow.

Birds recorded on the lodge include Kingfisher, Grey Heron, Pochard, Wigeon, Black-headed Gull and Grey Wagtail with up to 31 Teal recorded in November 2010. Woodland birds include Blackcap, Chiffchaff, Dunnock, Whitethroat and Wren. Signs of Water Vole activity have been recorded on site.

# Lancashire County Heritage Sites Biological Heritage Site

#### Clitheroe Castle Knoll



#### **Site Boundary**

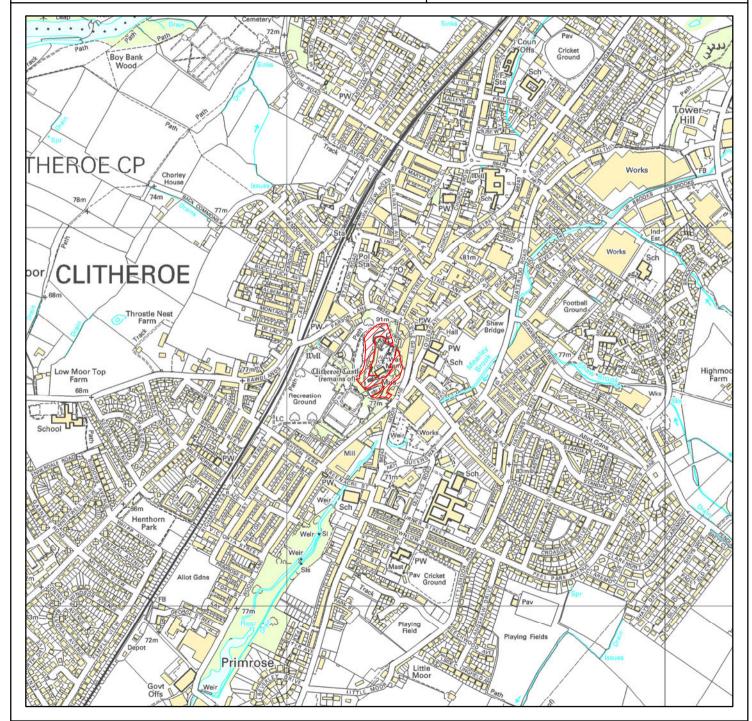
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**Ref No.** 74SW05

#### Biological Heritage Sites Partnership

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<b>Grid ref.</b> SD742415	<b>Scale</b> 1:10,000		Lancas
Site approved	<b>Map</b> 1 of 1	wildlife TRUST	County 🎺
Boundary revised	<b>Date of Map</b> 29/09/14	LANCASHIRE MANCHESTER N. MERSEYSIDE	Council



### **Lancashire County Heritage Sites**

# Biological Heritage Site

Biological Heritage Sites Partnership:

 Lancashire County Council
 Wildlife Trust for Lancashire Natural England

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Site Name: Clitheroe Castle Knoll

Site Ref: 74SW05 Approved: 08 September 1993

Area (ha): 1.04 Date written/last updated: 16 September 2013

Grid Ref: SD742417 Owner/Occupier:

**Districts:** Parishes: Ribble Valley Clitheroe

#### **Description:**

The site consists of several rock outcrops and steep sloping areas of limestone grassland, scrub and developing woodland below Clitheroe Castle.

Plants on the outcrops include Wild Thyme, Harebell, Salad Burnet, Burnet-Saxifrage, Wild Strawberry, Pellitory-Of-The-Wall, Wall Lettuce, Maidenhair Spleenwort, Wall-Rue, Herb-Robert, Ivy, Hawkweed species and French Sorrel.

The grassland flora on the steep slopes includes Hoary Plantain, Rough Hawkbit, Lady's Bedstraw, Common Bird's-Foot-Trefoil, Common Knapweed, Yellow Oat-Grass, Selfheal, Mouse-Ear-Hawkweed, Great Burnet, Greater Burnet-saxifrage and Bulbous Buttercup. The associated scrub comprises of Hawthorn, Blackthorn, Bramble, Grey Willow, Rose and Spindle with a ground flora of Dog's Mercury, Hairy Brome, Lords-And-Ladies, Ivy and Herb Bennet.

A number of exotic shrubs are established including Butterfly-bush and several Cotoneaster species.

#### Guideline(s) for Site Selection:

Rock (Ro2)

#### Other Information/Comments:

**74SW03** Primrose Lodge

#### **Guideline(s) for Site Selection:**

Artificial Habitats (Ar1)

Flowering Plants and Ferns (Ff4)

#### **Other Information/Comments:**

Mearley Brook is known to support two species of fish on the Lancashire BAP: Bullhead and Brown Trout the latter being listed under S.41 of the NERC Act.

APPENDIX 2: Bat and Bird Box Specification

#### **BAT BOX SPECIFICATION**

#### Schwegler 1FR Bat Tube

This long box can be installed within brick masonry, beneath plasterwork or wood panelling, or incorporated into concrete structures such as factory buildings or bridges. Inside it contains a woodcrete surface, a roughened wood board, and a metal mesh, providing a choice of roosting areas depending on the weather conditions and the bats' habits. This box is maintenance-free as the entrance slit is at the bottom, allowing for self-cleaning. No painting required, but if painting is necessary a natural breathable paint should be used.



Woodcrete (75% wood sawdust, concrete and clay mixture) Width 20cm, Height 47.5cm, Depth 12.5cm Entrance width 15cm, Entrance depth 2cm

#### Ibstock - Bat Box with Engraved Motif C

- Attractive motive
- Available in all brick types
- Discrete home for bats
- Various sizes
- Several roosting zones are created inside the box
- Bats are contained within the bat box itself
- Maintenance free with entrance at the base
- Ideal for new build & conservation work

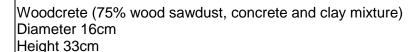


Ideal for new build & conservation we

215mm x 215mm or 215mm x 290mm F2 S2 Fully frost resistant

#### Schwegler 2F Bat Box

A popular general purpose box attractive to the smaller British bats. A simple design with a narrow entrance slit on the front.





#### **BIRD BOX SPECIFICATIONS**

#### Standard Brick Bird Box

The Bird Brick House fits into the outside skin of most 3" or 75mm brickwork courses and only protrudes 1" or 25mm (Swift box 2.5" or 65mm) into the cavity. All of our boxes are available in half bond (stretcher bond), quarter bond (Flemish/English) and are suitable for rendered properties.



#### Schwegler 1SP Sparrow Terrace

House sparrows are gregarious and prefer to nest close to each other, so this woodcrete box provides room for three families under one roof.

Made from long-lasting, breathable woodcrete. Stone colour. No maintenance required.

Dimensions 245 x 430 x 200 mm.

Weight 15kg. Designed for fixing to walls (not suitable for fences or sheds due to the weight of the box). (available in stone or brown)



#### Schwegler 1B Bird Box

The 1B appeals to a wide range of species, and is the official nest box of National Nest Box Week. The box can be nailed to the trunk of a tree, or hung from a branch. Schwegler boxes can be expected to last 25 years or more without maintenance.

Woodcrete, 23cm high x 16cm diameter.
With standard 32mm diameter entrance hole

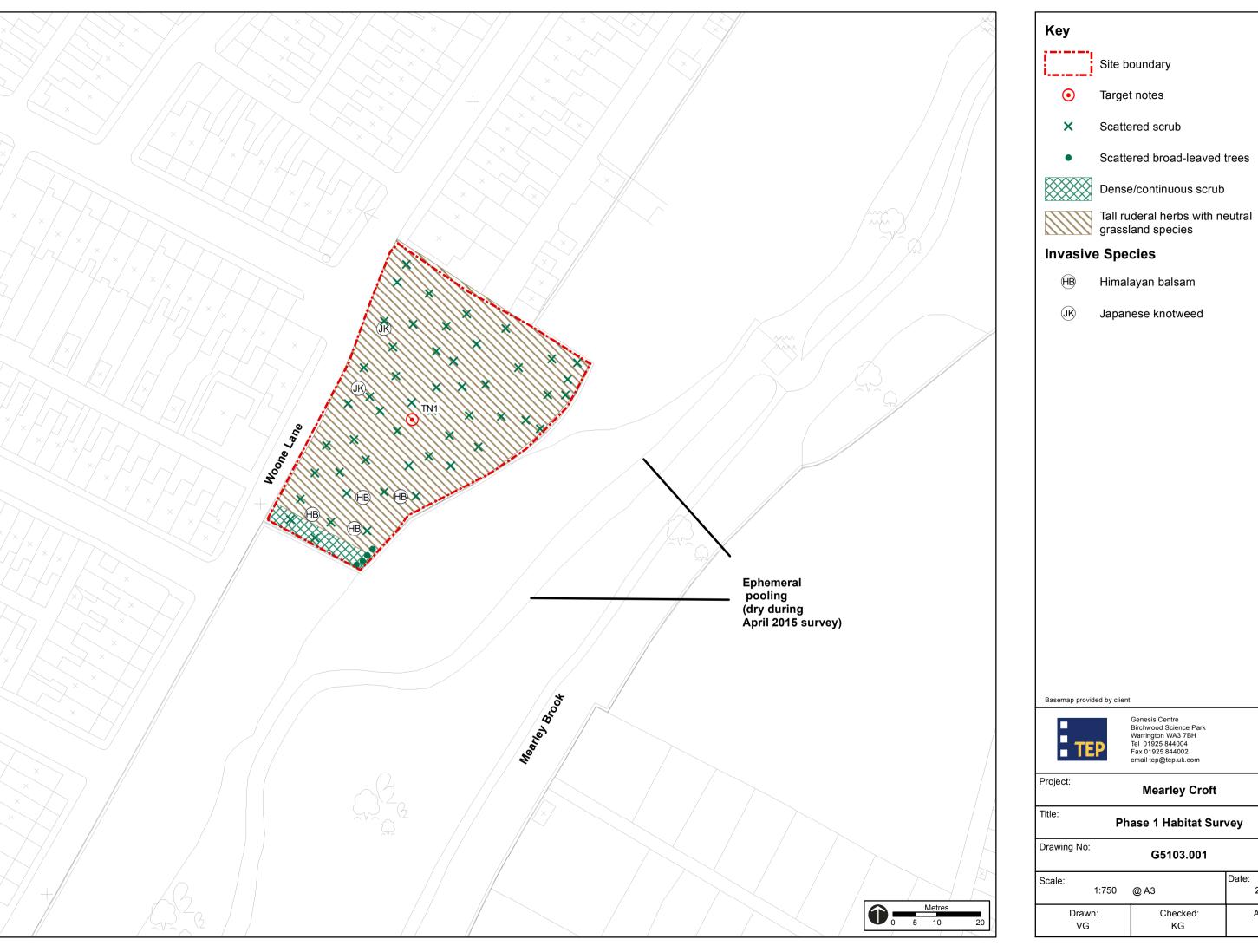


#### Schwegler Roundhouse Wren Box 1ZA

Well insulated and mimics natural nest sites. This nest box provides the enclosed, round space preferred by wrens for nesting. They will line the nest with moss, feathers and fur. The 1ZA is made from long-lasting, breathable Schwegler Woodcrete and provides excellent protection from nest predators. It not only houses wrens when bringing up their young but also provides a sheltered place where they can roost in the winter. Strong hanging cable included to site the nest amongst shrubbery.



**DRAWINGS** 



Scattered scrub

Scattered broad-leaved trees

Himalayan balsam

Genesis Centre Birchwood Science Park Warrington WA3 7BH Tel 01925 844004 Fax 01925 844002 email tep@tep.uk.com

**Mearley Croft** 

Phase 1 Habitat Survey

G5103.001

Scale:	1:750	@ A3	Date: 29/04/2015
	Drawn: VG	Checked: KG	Approved:

