

Client	Oakmere Homes Ltd
Project	Chatburn Road, Clitheroe
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## 0.0 Summary

This report, which was commissioned by Oakmere Homes Ltd, details the results of a Phase 1 Habitat Survey and Protected Species Risk Assessment of land off Chatburn Road, Clitheroe, Lancashire. The site is proposed for housing development.

### 0.1 Site Location and General Character

The site is located approximately 1.4km north east of the centre of Clitheroe and south of a cement works and a railway line. Chatburn Road forms the southern boundary of the site. The area is urban fringe with agricultural land east and south of the site as well as existing residential land to the west. The central grid reference of the site is GR: SD751430.

### 0.2 General Survey Methodology and Designated Sites

A Phase 1 habitat survey was undertaken of the site with the aim of characterising its biodiversity value. The survey aimed to record the presence/absence of key plant and animal species found in and around the site, and the communities and habitats they make up.

### 0.3 Designated Wildlife Sites

There are no statutory or non-statutory wildlife designations within the site. There are two geological SSSI's within a 2km search distance of the site – Coplow Quarry SSSI adjacent to the northern site boundary and Salthill and Bellmanpark Quarries SSSI approximately 250m to the south. No adverse impacts on these SSSI's are predicted as a consequence of development of the site. Salthill Quarry Local Nature Reserve is also located 250m south of the site. No direct impacts on the site are predicted and no significant indirect impacts, such as disturbance are anticipated.

### 0.4 Habitat Survey

#### Habitats Present within Site:

- Grassland (semi-improved)
- Grassland (unimproved)
- Marshy grassland
- Hedgerows and Trees
- Stream
- Drystone wall

#### Habitats Adjacent to Site:

- Fen
- Grassland (semi-improved)
- Urban (housing, gardens, roads)

#### Nature Conservation Status of the Habitats Present

Of the habitats present within the site, the stream habitat is a UK BAP priority habitat (rivers and streams) and whilst the hedgerow rows are species poor, the ground flora associated with them is diverse and would suggest that they are long-established. The site survey identified lowland fen vegetation adjacent to the eastern site boundary which is also a UK BAP priority habitat.

**Recommendation:**

*It is recommended that the stream and fen hedgerows habitats are protected from the direct and indirect impacts of development, including use:*

- *of an appropriately sized and designed buffer zone around the habitats*
- *lighting design methods to avoid light spill into these habitats*
- *appropriate boundary treatment that aims to sustain the undeveloped character of these habitats*
- *an appropriately designed surface water management regime which prevents adverse changes in ground water and surface water quality and flows as a consequence of the proposed development.*
- *Where loss of any of these priority habitats cannot be avoided through careful site design, compensatory habitat creation works should be undertaken.*

*It is recommended that where feasible, hedgerows are retained within the proposed built environment with appropriate buffer zones retained around them to enable them to continue to function as wildlife corridors. Where hedgerows cannot be retained in situ compensatory habitat should be created within the site.*

**0.5 Nature Conservation Status of the Species Present****Protected Species**

No species that are specially protected under the Conservation of Habitats and Species Regulations (Amendment) 2012 and/or the WCA (1981) have been recorded within the site. Targeted surveys for otter and water vole were undertaken with no evidence of the presence of these species found. The potential for breeding barn owl was assessed as low but with moderate potential for foraging. However, two trees within the site were classified as having a high risk of hosting roosting bats with other trees assessed as having a moderate potential.

***Recommendations:***

*Bats and their roosting places are afforded legal protection; as such it is advised that the following measures are taken with the aim of ensuring that any works undertaken to the trees on site are legally compliant:*

- *If the proposed development requires the pruning or felling of a category 2a tree, dusk and dawn surveys to establish the presence of bats in that particular tree would be required to inform any requirements for mitigation. If the presence of a roost is confirmed, the tree would be upgraded to a category 1 tree. Any trees with confirmed roosts will require an EPS<sup>1</sup> licence prior to arboriculture works. If the repeat survey did not confirm presence of a roost, the tree would be downgraded to a category 2b tree.*
- *If the proposed development requires the pruning or felling of a category 2b tree, this work must be carried out taking reasonable avoidance measures. The reasonable avoidance*

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<sup>1</sup> A European Protected Species (EPS) licence, if required, would include a detailed Method Statement describing how the works would be undertaken (in a manner that would avoid harming bats) and the measures that would be taken to compensate for the loss of the original roosts. EPS licences can only normally be granted following full planning permission and the EPS licence application process can take up to ten weeks.



*measures recommended for each category 2b tree are: the removal of any ivy before felling and the Appointed Ecologist to supervise soft fell lowering of limbs.*

- *Trees classified as category 3 in this study can be pruned or felled with no repeat survey work or mitigation, with regard to bats, considered necessary.*
- *In the event that bats, evidence of bats or additional potential roost features not identified during these surveys are observed within a tree with a category 2b or 3 classification prior to pruning or felling, all works should cease immediately and the Appointed Ecologist contacted for advice on how to proceed.*

*Compensation measures (i.e. bat boxes, new woodland planting) for the loss of any potential tree-roost features should be finalised in conjunction with the master-planning exercise.*

### **Breeding Birds**

There is a high risk of breeding birds being present within the site, in particular associated with trees, hedgerows and shrubs, and the stream and marshy grassland habitat.

#### ***Recommendation:***

*Breeding birds and their nests are afforded legal protection from harm and disturbance under the Wildlife and Countryside Act 1981 (as amended). Where feasible no vegetation clearance should be undertaken during the bird breeding season (typically 1<sup>st</sup> March – 31<sup>st</sup> August). If shrub or tree clearance during this time is required then pre-clearance checks should be undertaken by a suitably qualified and experienced ecologist to confirm that no breeding birds or their nests will be affected by the works.*

### **BAP Priority Species**

No UK BAP priority species were observed as present on the site during the site survey, however, there is a high risk of toads being present and potentially priority bird species such as dunnock, song thrush, yellowhammer and possibly wetland birds such as Northern lapwing associated with the marshy grassland.

### **Invasive Weeds**

Himalayan balsam, a plant listed on schedule 9 of Wildlife and Countryside Act 1981, was relatively widespread within the site. Himalayan balsam is a non-native species which spreads rapidly into semi-natural habitats at the expense of native plants and associated animals.

#### ***Recommendation:***

*Measures are taken to control the spread of Himalayan balsam outside of the site in accordance with the requirements of Wildlife and Countryside 1981.*

## 1.0 Introduction

This report, which was commissioned by Oakmere Homes Ltd, details the results of a Phase 1 Habitat Survey and Protected Species Risk Assessment of land off Chatburn Road, Clitheroe, Lancashire. The site is proposed for housing development.

### 1.1 Site Location and General Character

The site is located approximately 1.4km north east of the centre of Clitheroe and south of a large cement works and a railway line. Chatburn Road forms the southern boundary of the site. The area is urban fringe with agricultural land east and south of the site as well as existing residential land to the west. The central grid reference of the site is GR: SD751430.

**Figure 1.1 Survey Boundary**



## 2.0 General Survey Methodology and Designated Sites

A Phase 1 habitat survey was undertaken of the site with the aim of characterising its biodiversity value. The survey aimed to record the presence/absence of key plant and animal species found in and around the site, and the communities and habitats they make up. Certain species and habitats are afforded protection through planning policies and legislation at a local, regional and national level. This report details:

- the presence of any designated sites of nature conservation value within a significant distance of the site
- the habitats and species found on the site and their ecological value
- the presence or potential for protected species or habitats
- legislation relating to these species and habitats.

### 2.1 Habitat Survey Method

A site walk over was conducted on the 18<sup>th</sup> April 2013 by Dr Rachel Penn (MCIEEM CEnv) during which habitats found were identified and mapped according to the Joint Nature Conservation Committee 1993 Phase 1 methodology.<sup>2</sup> Additional notes were made on species composition and structure where appropriate and are described in this report.

### 2.2 Protected Species Risk Assessment

During the site walk-over the potential for protected species and the need for further protected species surveys was assessed based on habitat suitability, existing datasets and site observation.

### 2.3 Desk Study

A search for designated wildlife sites and protected species records was carried out using the Natural England's 'Nature on the Map' website<sup>3</sup> and the NBN Gateway website<sup>4</sup> which were accessed on the 15<sup>th</sup> April 2013.

### 2.4 Designated Sites

Certain areas of land are afforded statutory protection under the Wildlife and Countryside Act 1981 (as amended) and/or the National Parks and Access to the Countryside Act 1949 (as amended by Schedule 11 of the Natural Environment and Rural Communities Act 2006). Land may also be given non-statutory designations, which may be afforded weight in the planning system e.g. Local Wildlife Sites. The Nature on the Map website identified the statutory designated wildlife sites listed in table 2.1 within a 2km search distance of the site boundaries and their location is shown on plan 2.1.

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<sup>2</sup> Joint Nature Conservation Committee Handbook for Phase 1 Habitat Survey A technique for environmental audit 2003

<sup>3</sup> (<http://www.natureonthemap.naturalengland.org.uk>)

<sup>4</sup> (<http://www.nbn.org.uk/>)

**Table 2.1 Statutory and Non-statutory Designated Wildlife Sites within 2km Search Distance**

Site Name	Summary of Interest	Distance from Site
Coplow Quarry SSSI (Geological)	Designated in 1951, Coplow Quarry is a disused limestone quarry situated just north of Clitheroe. The faces provide the best known exposures of a series of limestone layers, known as the Lower Coplow Knoll Series, originally formed in the Lower Carboniferous period of geological history, about 340 million years ago.	12m
Salthill and Bellmanpark Quarries SSSI (Geological)	This geological site straddles the A671 road immediately to the north-east of Clitheroe and is comprised of three adjacent disused quarries. The famous Carboniferous Limestone site is the type locality for the fossiliferous Salthill Bank Beds (Chadian) and the Salthill Cap Beds (Arundian) of the Clitheroe Limestone Complex. It provides the best sections through the Chadian and the Knoll Reefs of the Craven Basin, and some of the finest such sections in the English Lower Carboniferous	250m
Salthill Quarry LNR	The site is of botanical interest displaying a mixture of vegetation representing different stages of natural succession. The site includes areas of limestone grassland with Bee Orchid, Carline Thistle, Milkwort and Autumn Gentian as well as Ash woodland. The site is also of ornithological and invertebrate interest.	250m
Cross Hill Quarry LNR	Abandoned as a working quarry in the early 1900's, Cross Hill contains species-rich calcareous grassland with Fairy Flax, the Lemon Flowered Mouse-ear Hawkweed, Lady's Bedstraw and wild herbs such as Wild Thyme and Marjoram. The flower-rich grasslands of the main quarry attract a number of butterflies including Common Blues, Orange Tips and Meadow Browns. Bird activity can be observed all year round with Willow Warbler, Chiffchaff, Grey Wagtails and Sand Martins very evident from April. The river provides feeding ground for birds such as Herons and Kingfishers.	420m
<p><b>Abbreviations</b>                      SSSI: Site of Special Scientific Interest                      LNR: Local Nature Reserve                      LWS: Local Wildlife Site</p>		



Figure 2.1 Location of SSSI's within 2km Search Distance of Site

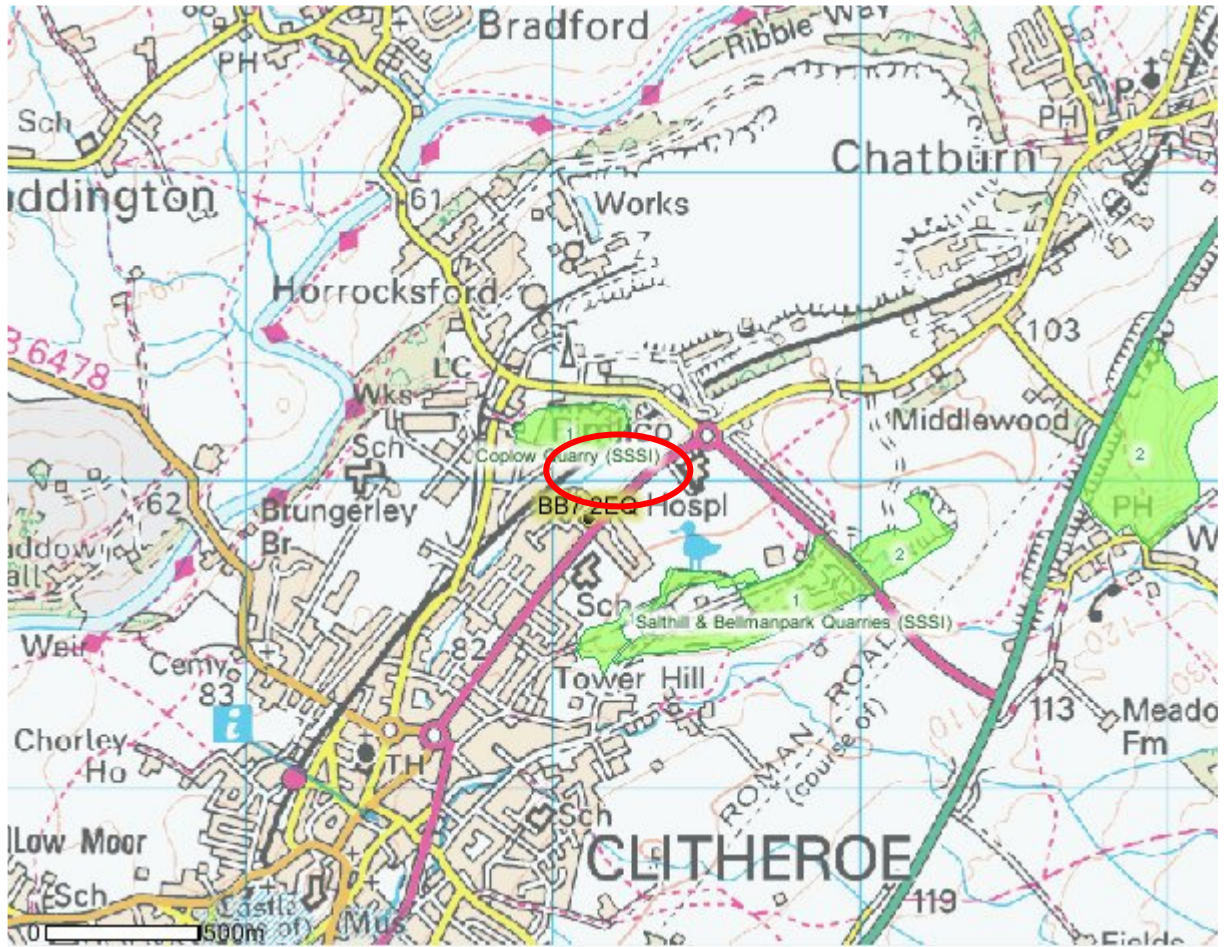
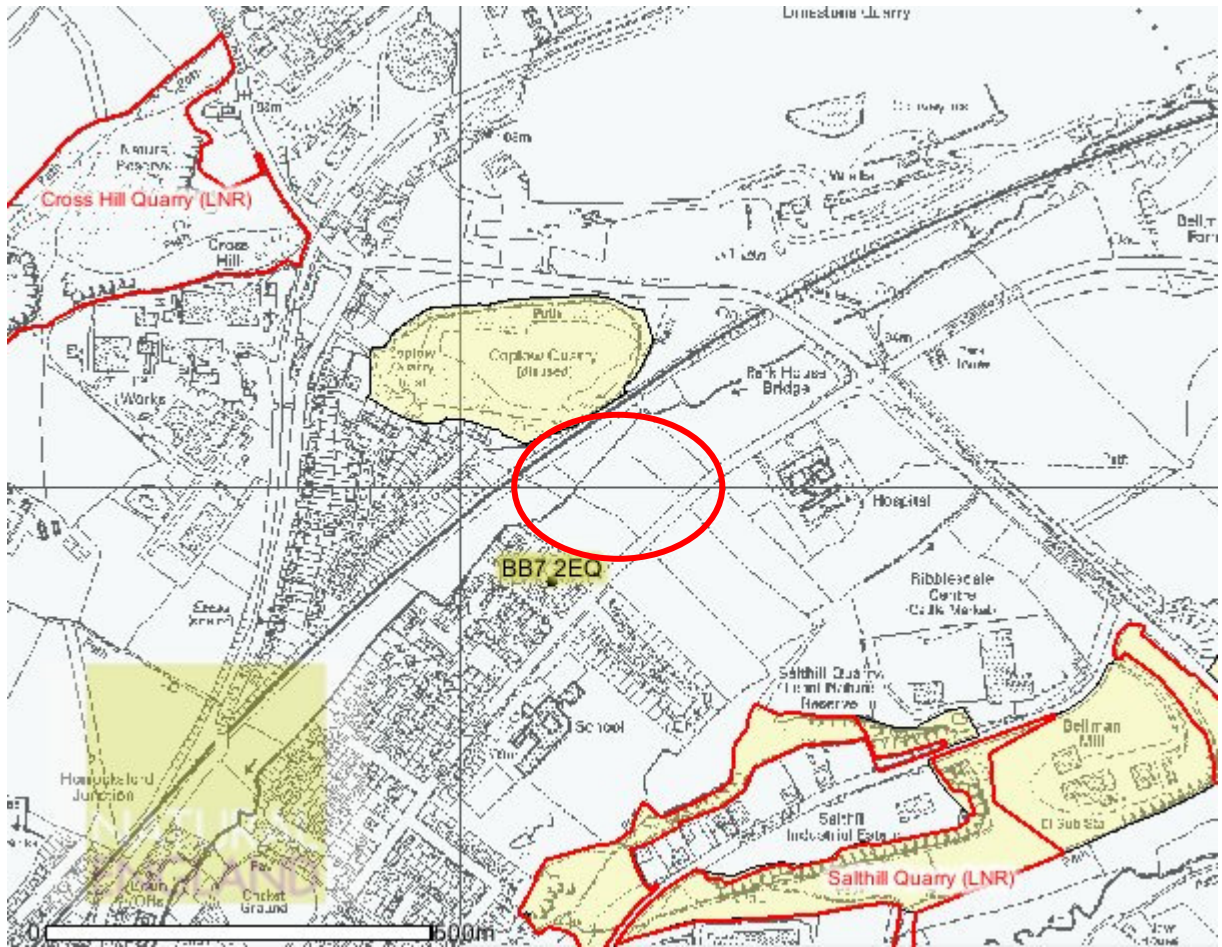


Figure 2.2 Location of Local Nature Reserves within 2km Search Distance of Site



## 2.6 Natural Area

The site is located within the Forest of Bowland Natural Area. The underlying rocks which are of Carboniferous age include hard Millstone Grits and limestone 'reef knolls' near Clitheroe. These have resulted in a diverse landscape rich in features of interest. The Forest of Bowland is dominated by a distinct, almost circular dome of heather moorland. The high Millstone Grit-capped summits of Bowland Fells and Pendle Hill, with their expansive areas of wild, open rolling heather moorland and blanket bog, are managed principally for grouse and sheep. Such areas provide a habitat for internationally important populations of red grouse, hen harrier, merlin, peregrine and golden plover.

This dome of moorland is incised by steep, wooded river valleys and is surrounded by a soft, undulating landscape with a mosaic of rush-filled pastures, herb-rich hay meadows and broadleaved woodland, separated by lush agricultural grassland, parkland and water bodies, such as Stocks Reservoir. The area is traversed by many fast-flowing upland streams and rivers, including the Hindburn, Roeburn, Lune, Wyre, Brock, Calder, Ribble and Holder.

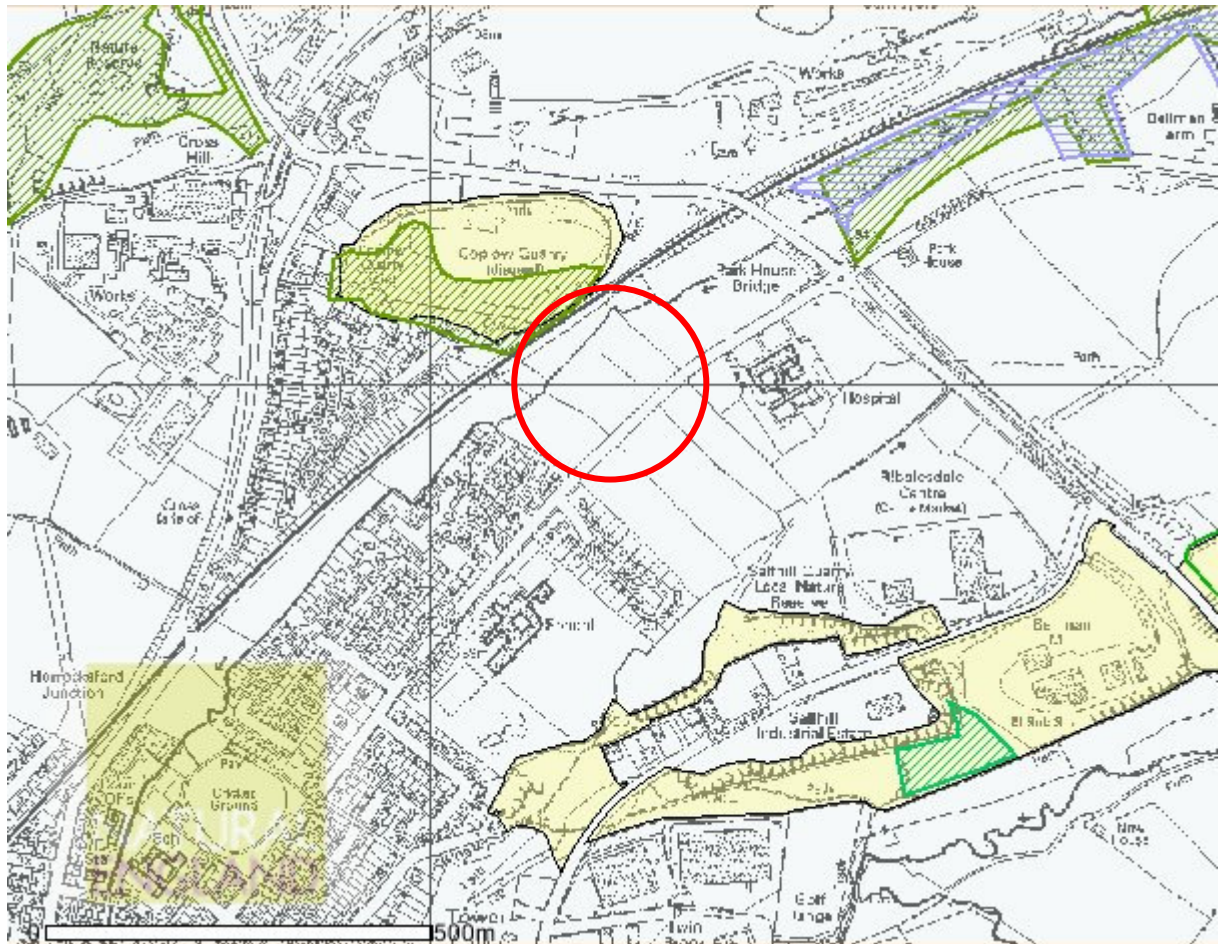


## 2.7 UK and Local Biodiversity Action Plan (BAP)

National and Local Government and Biodiversity Partnership habitat and species priorities are set out in the UK Biodiversity Action Plan and the Lancashire Biodiversity Action Plan.

Figure 2.4 shows the extent of UK Biodiversity Action Plan habitats within the vicinity of the site, as identified on the Nature on the Map website. There are no BAP priority habitats identified within the site but there are blocks of deciduous woodland north and east of the site (green hatch) with purple moor grass and rush pasture adjacent to the railway line (purple hatch).

**Figure 2.4 Location of UK Biodiversity Action Plan Priority Habitats (BAP) within the vicinity of the Site**



## 2.7 Limitations of Survey

One site visit was undertaken in mid-April at a time of year when many plant and animal species are becoming active and capable of identification. The nature of the habitats present was such that confidence could be given to the habitat classifications. There were no access constraints to the survey.



### 3.0 Habitat Survey

The habitats recorded within the survey area are described below and their location and extent is illustrated in Plan 1.

#### Habitats Present within Site:

- Grassland (semi-improved)
- Grassland (unimproved)
- Marshy grassland
- Hedgerows and Trees
- Stream
- Drystone wall

#### Habitats Adjacent to Site:

- Fen
- Grassland (semi-improved)
- Urban (housing, gardens, roads)

### 3.1 General Description

#### Habitats Present within Site

##### Grassland (semi-improved)



The majority of the site is semi-improved grassland dominated by common forbs. The species observed included perennial rye grass (*Lolium perenne*), common bent (*Agrostis stolonifera*), Yorkshire fog (*Dactylis glomerata*), daisy (*Bellis perennis*), dandelion (*Taraxicum officinale*), clover (*Trifolium repens*), buttercup (*Ranunculus repens*) and ribwort plantain (*Plantago lanceolata*).



### Grassland (Unimproved)



Small patches of unimproved grassland were associated with the hedge lines with sheep's fescue (*Festuca ovina*), lesser celandine (*Ranunculus ficaria*), field woodrush (*Luzula campestris*) and sheep's sorrel (*Rumex acetosella*) present. Under some of the more mature trees plants were more typical of woodland ground flora such as lords and ladies (*Arum maculatum*).

### Marshy Grassland





A band of marshy grassland was present along the stream which flows in a south westerly direction through the site. In addition to rush species (*Juncus effusus* and *J inflexus*) the grassland included abundant meadowsweet (*Filipendula ulmaria*), willowherb (*Epilobium sps*), opposite-leaved golden saxifrage (*Chrysosplenium oppositifolium*), reed sweet grass (*Phalaris arundinacea*) and valerian (*Valeriana sps*).

### Hedgerows and Trees



The fields are divided by unmanaged hedgerows dominated by hawthorn (*Crataegus monogyna*) with occasional elder (*Sambucus nigra*) to a height of approximately 5m. Mature field trees are associated with most of the hedgerows with ash (*Fraxinus excelsior*) within the site and six mature sycamores (*Acer pseudoplatanus*) along the western site boundary.





A group of mature shrubs are present along the stream with an old hazel (*Corylus avellana*) coppice, mature alder (*Alnus glutinosa*), grey willow (*Salix cinerea*), ash and hawthorn.

### Stream



A stream runs in a south westerly direction through the site with tributaries entering along the southern site boundary (virtually dry at the time of survey) and from the north. The stream channel was typically 1-3m wide and water depth 15cm deep at the time of survey with a relatively fast current. The water appeared to hold a high volume of suspended solids – possibly run off from industrial activity upstream of the site. Occasional aquatic and marginal plants were present including water mint (*Mentha aquatica*) and flote grass (*Glyceria fluitans*).



This stream joins with others to become Mearley Brook which flows through the centre of Clitheroe and ultimately into the River Ribble.

### **Stone Wall**



The southern boundary of the site is defined by a dry-stone wall which supports ivy-leaved toadflax (*Cymbalaria muralis*) and maidenhair spleenwort (*Asplenium trichomanes*).

### **Habitats Adjacent to Site:**

#### **Fen**





An extensive area of fen vegetation is present along the eastern site boundary to the north and south of the stream. On the northern boundary the fen is dominated by reed canary grass with abundant meadowsweet and other forbs such as opposite-leaved golden saxifrage, common figwort (*Scrophularia nodosa*) and on drier land raspberry (*Rubus idaeus*). To the south of the stream it is dominated by sedge species (*Carex riparia*?) The stream, which flows through the fen, is relatively unmodified in form with patches of scrub (hazel, hawthorn and blackthorn) with an understorey of dog's mercury (*Mercurialis perennis*) and wild garlic (*Allium ursinum*) indicating this is probably an area of remnant ancient woodland.



#### **4.0 Protected and Invasive Species Risk Assessment**

A number of plant and animal species are afforded special protection through legislation. This can make it illegal to undertake works that have the potential to harm or disturb these species, hence it is important that the status of these species on the site is fully understood. Where there is a risk of any of these species being present, it is advised that no development related works are undertaken without a sound understanding of the legal implications of such works on the client. A summary of relevant wildlife legislation is presented in Appendix 1 but it is the client's responsibility to take further advice on the implications of this legislation in the context of this site and their operations.

A desk-top study was undertaken to identify those plant and animal species that are afforded special statutory protection under the following legislation that have the potential to be present on site or within the wider area:

- Wildlife and Countryside Act 1981 (as amended)
- Conservation of Habitat and Species Regulations (Amendment) 2012
- Protection of Badger Act 1992.

#### **Checking Surveys**

Note that the results of the risk assessment and faunal surveys are applicable only at the time at which they are undertaken. The biodiversity status of a site changes with both the passage of time and site conditions. Therefore, should there be a change in site conditions or a significant lapse of time (say 1 year) prior to development starting then checking surveys for protected species may be required to confirm their status on site, and hence ensure compliance with relevant protected species legislation.

#### **Invasive Species**

Certain plant species are listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). The Act states that *'if any person plants or otherwise causes to grow in the wild any plant which is included in Part II of Schedule 9, he shall be guilty of an offence'*. Where any of species listed on Schedule 9 was observed on site during the site walk-over survey this is noted below.



## Search Distance

The distance over which the presence of a species is significant in terms of the risk assessment varies from species to species depending upon a species typical home range, commuting and foraging distance etc. A distance of 500m is of particular significance for great crested newt, being the maximum distance this species is understood to range from its breeding ponds. This 500m radius from the site is shown on Figure 4.1 for reference purposes.

**Figure 4.1 250 and 500m radii from Site**



### 4.1 Species Survey Methodology adopted during Initial Site Walk-over Survey

Evidence of protected species was sought for during the habitat survey, with the following specific survey methods adopted

**Bats:** tree groups within the site were assessed for their potential to support roosting or hibernating bats using high powered binoculars from ground level. Observations regarding tree age, stature, girth, present of split limbs, scars and other wounds were noted. Where trees with a high risk of hosting hibernating or roosting bats are identified, this is highlighted within the report.

**Badgers:** evidence of badger activity within the site was sought through observation for badger tracks, snuffle holes and latrines, as well as the more obvious badger setts.

**Great Crested Newt:** The presence of ponds potentially suitable for breeding great crested newt either within the site or within 500m of the site where such land is accessible was recorded. However, great crested newts occupy terrestrial habitats outside the breeding season, with scrub, long grassland, stone and wood piles being favoured habitat. Where suitable terrestrial habitats are located within the site this is noted.

**Red Squirrel:** Evidence of red squirrels within the site is sought by visual observation for the species in woodland and scrub areas, evidence of dreys in the trees as well as feeding remains e.g. nuts, pine cones.

**Reptiles:** Evidence of reptiles was sought by direct observation in suitable habitats e.g. long grass, areas of bare soils and stones which can provide basking sites as well as by searching in suitable refugia (only during the summer months to avoid disturbance during hibernation). However, reptiles can be elusive and hence the risk assessment takes this factor into account.

**Water Vole:** Water vole typically are found within 5m of watercourses and ditches although they can move up to 15m from a watercourse in search of a mate, hence the absence of any suitable watercourse or ditch within the site is a good determinant of the risk of water vole being present. Where a watercourse or ditch is present then evidence of water vole in the form of grazing lawns, holes, foot prints and latrines as well as the sound of water vole entering the water is good evidence of water vole activity.

**Otter:** Otter are only likely to be resident within a site where there is a reasonably large water body that hosts fish. They may be present on a lake or river bank and move through suitable adjacent habitat some distance from the water. The presence of otter spraints, often on rocks, as well as otter foot prints as well as sightings are reliable indicators of otter activity.

**Breeding Birds:** The presence of breeding birds within a site is typically evidenced by breeding activity (courtship and mating) as well as by the presence of nest which may be located within trees, shrubs as well as on the ground in long grass, rushes etc.

## 4.2 Desk-top Study

Desktop data on the distribution of protected species was obtained from the NBN Gateway, which is the largest, widely accessible, biological dataset for the UK. It contains data from a wide range of historic and current data recording centres and atlas's. Reference was also made to the North East England Reptile Atlas (2008) and Amphibian Atlas 2008. Table 4.1 contains a summary of the information obtained from these datasets and a risk assessment for protected species based on the dataset records as well as the site survey and evaluation.

The absence of a record for a locality can be taken as confirmation that the species is not present; rather it may reflect lack of survey effort. It should also be noted that many of the data records are more than 10 years old. Hence whilst the results need to be interpreted in an informed manner, the dataset does provide valuable information regarding the general distribution of species within any given region.

**Table 4.1 Status of Species afforded Special Legal Protection within 2km search distance of Site obtained from NBN Gateway.**

Species	Conservation Status	Risk Assessment for Site	Summary Risk
<b>Mammals</b>			
Bat	EPS WCA (Sch 5)	Myotis records north west of site in woodland at West Bradford and west of Clitheroe on NBN dataset. Pipistrelle species recorded for 10km tetrad which covers the site and land to the north. High risk of foraging bats over the site and potential for small numbers of crevice dwelling bats to be associated with the mature trees within the site.	High risk of foraging bats, in particular over the stream and marshy grassland habitats and along the hedge lines. Moderate risk of roosting bats associated with mature trees.
European otter	EPS WCA (Sch 5)	Otter NBN record approximately 2km east of the south of Sawley and downstream, west of Clitheroe on the River Ribble. Fen vegetation east of site suitable laying up area.	Low risk of holts. Potential for otter to commute through the site to higher quality feeding ground. Otter survey advised.
Water Vole	WCA (Sch 5)	Water vole NBN record on the River Ribble approximately 1.5km downstream of the site, west of Clitheroe as well as upstream north of Sawley. Fen vegetation east of site high value potential habitat.	Potential for water vole to breed and feed within the site. Water vole survey advised.
Eurasian badger	Badger Act	No evidence of badger activity within the site, either in the form of track ways, dung heaps or setts etc. High potential for badgers to be present within vicinity of site.	No current evidence of badger within the site but likely to be present in near locality of site.
Red squirrel	EPS WCA (Sch 5)	No recent NBN records for red squirrel within 5km of site.	Negligible
<b>Birds</b>			
Barn owl	WCA (Sch 1)	Barn owl NBN record within 5km of site. Site of potential value for foraging barn owl with low potential for barn owl breeding in trees present on site	Low potential for breeding and moderate potential for foraging
Breeding birds	WCA	High risk of breeding birds present within the site, in particular in the trees, hedgerows and scrub associated with the stream and potentially ground nesting birds associated with the marshy grassland.	High
<b>Herptiles</b>			
Reptiles	WCA (Sch 5 partial)	No records for adder or grass snake within 10km of site with occasional records of slow worm and common lizard on upland in the Forest of Bowland over 5km from the site.	Negligible
<b>Herptiles</b>			
Great crested newt	EPS WCA (Sch 5)	No NBN records of great crested newts within 5km of the site with the closest records over 5km south of Whalley and on the eastern flanks of Pendle Hill. Stream habitat of low suitability for great crested	Low risk



		newts with no standing water within the site	
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EPS: European Protected Species (i.e. Species afforded legal protection under the Conservation of Habitats and Species Regulations 2010)

WCA (Sch 5): Species afforded protection under the Wildlife and Countryside Act 1981 (as amended). Relevant schedule number follows.

NBN Gateway Data: Reference is made to the NBN gateway data to provide general information of the distribution of species within the vicinity of the site. Where this indicates species are resident in the locality of the site, more detailed species surveys are recommended and/or sourcing data from the Local Biological Records Centre. The contribution of the data provider is kindly acknowledged as is the NBN Gateway (data.nbn.org.uk). Website accessed 15 April 2013.

### Faunal Observations during Site Survey

Frogspawn was present within the stream which runs through the site.



### 4.3 Protected Species Surveys

Subsequent to the initial protected species risk presented in Table 4.1 above, PAEL was appointed by the client to undertake further surveys for those species where a potential risk of them being present on site was identified. The results of these surveys are presented below.

### **4.3.1 Otter *Lutra lutra***

Otter surveys record field signs along rivers and streams to determine activity levels and patterns of behaviour over a predetermined area of suitable habitat ('The New Rivers and Wildlife Handbook' (RSPB, NRA and RSNC, 1995). This methodology complies with the survey requirements as set out in the Design Manual for Roads and Bridges (DMRB).

Otter surveying records locations of otter activity i.e. footprints, spraints (otter droppings), feeding remains, footprints, slides (where otters pass back and forth to the waters edge), lying-up areas and holts to determine otter usage of particular stretches of a river and its tributaries. The otter survey undertaken on the un-named stream which flows through the site consisted survey of both banks (where accessible) within the site boundaries.

There are a number of different types of resting places used by otters. Below is a brief description of the resting sites.

#### **Holts**

Otter holts are places/structures used by otters for shelter on a 'permanent' basis. Holts are covered structures, usually a hole or burrow along the river bank amongst riparian vegetation and the roost system of river side trees, or behind boulders set in to the bank. Usually a holt will also have other associated otter field signs such as footprints or an accumulation of spraint. Holts may also be connected to lying-up areas and have more than one entrance as with badger setts.

#### **Lying-up areas/couches**

Lying-up areas or couches are 'temporary' areas used by otters for resting, grooming or feeding whilst on the move. Lying-up areas usually do not form a full covered structure, rather they are partially hidden bankside shelves amongst riparian vegetation, or 'nest-like' structures amongst reeds and grasses. As with holts, lyingup areas usually have other field signs to demonstrate use by otters.

#### **Natal Dens**

Natal dens are holts which are used by otters to give birth and rear their young natal dens usually have inconspicuous entrances and have little or no evidence of otter activity around the entrance. Natal dens can be located some distance from the watercourse, sometimes being set back in woodland amongst log piles, tree roots, rubble or even amongst reed beds. The banks of the ditches and watercourses within the site and a 500m radius of the site were assessed for their potential to support otter in line with methods given in Chanin (2003). Any field signs of otter activity, including footprints, spraints, lying-up sites and holts were noted. All fieldwork is carried out in accordance with current best practice guidelines with reference to Monitoring the Otter (Life in UK Rivers 2003), the Design Manual for Roads and Bridges; Volume 10 Section 4 Part 2 (Highways Agency, 2001), and The New Rivers and Wildlife Handbook (RSPB, NRA and RSNC,1995).

### **Survey Results**

Despite a comprehensive search throughout the site for signs of otter presence or activity, none were found. Throughout the entire site the banks for the single un-named stream were readily accessible and a comprehensive search was possible. The stream was only approx. 70-100cm wide

throughout the site and no trees with mature or exposed roosts were present along its bank. This is relevant as it meant that no hidden or inconspicuous holt/natal den site could be present. In addition, it was considered that the bankside vegetation was potentially suitable and provided adequate cover for an otter resting place, but none was found (See Plate 4.1).



*Photo 4 1: The small watercourse had suitable resting sites for otter along its length, but none were found.*

### **4.3.2 Water vole: Field Survey**

#### **Survey Method**

Both banks of the un-named stream which flows through the site was walked by the surveyor on 25/07/2013. The banks of the ditches and watercourses were assessed for their potential to support water vole. The survey methods were implemented in accordance with those described in the Water Vole Conservation Handbook, (Strachan and Moorhouse, 2006).

A detailed examination of the watercourses was carried out to search for evidence of water vole such as;

- Feeding signs, including feeding stations;
- Latrines and individual droppings;
- Burrows, nests and feeding lawns (areas of shortly-grazed grassland at the entrance to a burrow);
- Footprints and obvious runways in vegetation; and
- Distinctive 'plop' sound of water voles entering the water.

The survey was undertaken on 25/07/2013 which is during the optimal period (between April and early-October) for identifying breeding territories (Strachan & Moorhouse 2006). In addition, the survey was carried out during dry weather and the water levels were suitably low allowing good visibility of the banks. Surveys were conducted from both banks to maximise views of the banks.

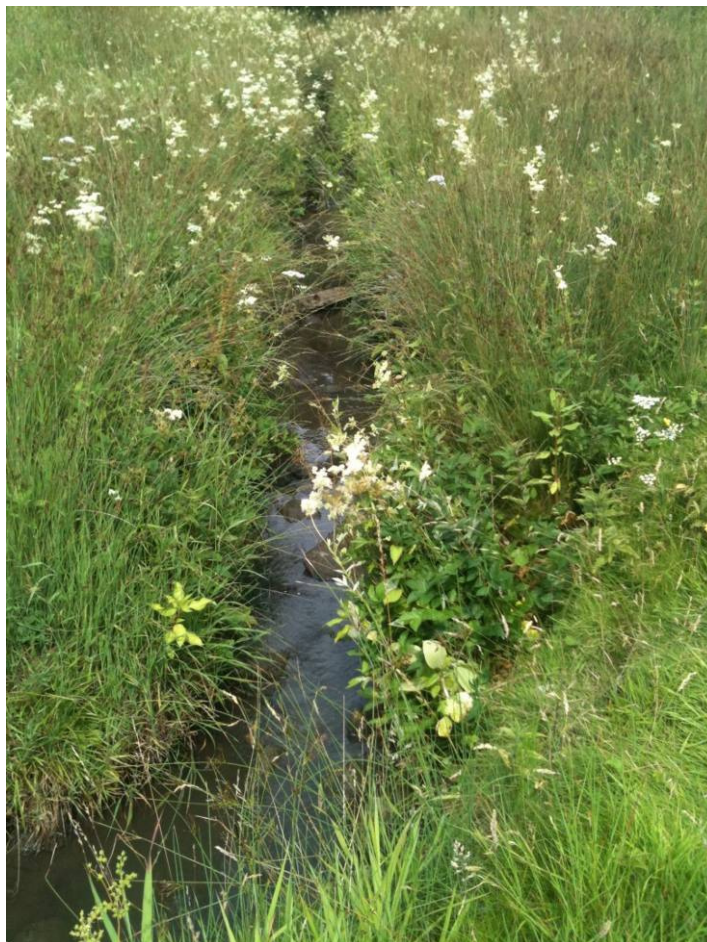
Any evidence of water vole was to be recorded on a map and accompanied by photographs.

#### **Survey Results**

Water levels were low in the single small stream which flows through the site. This meant that conditions were ideal for searching and observing any low-level water vole burrows which might have been present. Nonetheless, despite a thorough search, no signs of water vole activity were observed. The characteristics of the channel were considered to be reasonable for water vole lots of overhanging banking and some aquatic plants and grasses and with good dense cover with meadowsweet and rushes along its length (See Plate 5.2).

One possible sign of historical water vole activity was found in the northern section of the site along the stream. This was a single burrow. However, the burrow was choked with vegetation and no other signs of any water vole activity were present, so it was no concluded that no water voles are present.





*Plate 4.2: As can be seen, the stream offered potentially suitable water vole habitat.*

### 4.3.3 Bats: Tree Inspection

#### Survey Method

A visual survey of all trees was carried out. Trees were categorised into high, medium or low potential for bats. The following signs which can be indicators of bat presence were used for the categorisation:

- Woodpecker holes with small cracks/crevices
- Cracks/crevices, ivy cover and flaking bark
- Loose or flaking bark deadwood in canopy or stem low/no ivy cover
- Medium to dense ivy cover
- Deadwood in canopy or stem
- Snagged branches
- Hollow stems or limbs
- Hole in buttresses/hollow core
- The following signs were searched for in all of the above places as these would indicate bat presence:
  - Staining around a hole, caused by natural oils in the bats' fur.
  - Stains beneath a hole, caused by bat urine.
  - Scratch marks around a hole, caused by bat claws.
  - Bat droppings beneath a hole.
  - Insects (especially flies) around a hole.

Once surveyed, each tree was categorised, using Bat Conservation Trust guidelines, according to its potential to support roosting bats into one of four categories: 1. Confirmed bat roost, 2a. High potential to support bats, 2b. Low/moderate potential to support bats, and 3. Negligible potential to support bats.

## Survey Results

The majority of trees on the site were mature and located in hedgerows which had not been recently managed. Two ash trees were identified as having bat roosting potential - trees T1 and T2; further bat survey work would be required if they were to be affected by any proposed development at the site. As can be seen from Plates 4.3 and 4.4, both ash trees contained features which could be used by bats.

Several of the mature hawthorn had cracks, splits and crevices as ivy which made them potentially suitable for roosting bats. Although these specimens were classed as 2b – low to moderate potential they should nevertheless be subject to bat survey if they are to be impacted by any development (See Plate 4.5). The remainder of the hawthorn were mature specimens, but despite this, no opportunities for bat roosting were observed (See Plate 5.6). See Table 4.2 and Plan 1 for a detailed assessment of the bat roosting potential of the trees within the site.



*Photo 4.3: The mature ash tree with bat roosting potential (T1).*





*Photo 4.4: The other mature ash tree with high bat roosting potential (T2).*



*Photo 4.5: An example of the mature hawthorn, which had low/moderate bat roost potential.*



*Photo 4.6: The other hawthorn on site were mature, but did not have bat roosting potential*

**Table 4.2: Schedule of trees and their potential for bats.**

<b>Tree Number</b>	<b>Species</b>	<b>Properties</b>	<b>Assessment</b>
T1	<i>Fraxinus excelsior</i>	Mature with torn limb on North side, many crevices	2a
T2	<i>Fraxinus excelsior</i>	Mature with torn limb on South side, some crevices	2a
T3	<i>Fraxinus excelsior</i>	Mature with torn some crevices	2b
T4	<i>Crataegus monogyna</i>	Small hedgerow tree with some crevices @2m height.	2b
T5	<i>Crataegus monogyna</i>	Large mature tree with crevices @5m height.	2b
T6	<i>Alnus glutinosa</i>	Mature trees with ivy growth, some crevices.	2b
T7	<i>Crataegus monogyna</i>	Mature with some crevices	2b
T8	<i>Fraxinus excelsior</i>	Mature with some crevices, torn limb on E&W side.	2b
T9	<i>Fraxinus excelsior</i>	Mature with torn limb, some crevices	2a
T10	<i>Alnus glutinosa</i>	Mature with torn limb, some crevices	2b
T11	<i>Alnus glutinosa</i>	Mature with some crevices and damaged limb	2b
T12	<i>Alnus glutinosa</i>	Mature trees with ivy growth, some crevices.	2b
T13	<i>Alnus glutinosa</i>	Mature trees with some crevices.	3
T14	<i>Crataegus monogyna</i>	Mature trees with some crevices.	3
T15	<i>Acer pseudoplatanus</i>	Mature trees with some crevices.	3
T16	<i>Acer pseudoplatanus</i>	Mature trees with some crevices.	2b
T17	<i>Acer pseudoplatanus</i>	Mature trees with some crevices.	2b
T18	<i>Acer pseudoplatanus</i>	Mature trees with some crevices and newly torn limb.	2b

## 5.0 Interpretation of Results and Recommendations

In this section, general guidance on the planning and legislative context for biodiversity is provided, along with a site specific interpretation of the value of the proposed development site, in the context of this guidance.

### 5.1 National and Regional Planning and Legislative Context

The UK Government's national approach to planning policy is set out in the National Planning Policy Framework (NPPF) (March 2012). The UK Governments Biodiversity 2020 Strategy, published by DEFRA in 2011, sets a context within which the NPPF should be viewed. Specifically Biodiversity 2020 aims to:

*Para 8: Halt overall biodiversity loss, support healthy well functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people.*

This is consistent with the Governments Environment White Paper, The Natural Choice (June 2011) which aims to:

- *shifts emphasis from piecemeal conservation action towards a more integrated landscape-scale approach*
- *value the natural environment in decision making and thereby unlock growth in the green economy and reconnect people with nature.*

### National Planning Policy Framework

The NPPF reflects the commitments set out above, stating that (Para 109)' *the planning system should contribute to and enhance the natural and local environment by:*

- *Protecting and enhancing valued landscapes, geological conservation interest and soils;*
- *Recognising the wider benefits of ecosystem services;*
- *Minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures'.*

### Natural Environment and Rural Communities Act 2006 (NERC)

Section 41(3) (a) and (b) of the NERC Act 2006 requires the Secretary of State to promote the taking of steps by others to further the conservation of habitats and species identified as priorities under Section 41 of the Act.

In addition to the above, Section 40(1) of the NERC Act 2006 introduced the 'biodiversity duty' which requires that;



*'Every public authority [including Local Planning Authorities] must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity'.*

### **Relevant Protected Species Legislation**

European and UK legislation affords protection to many plants and animals, with some species afforded a high level of protection from disturbance. A summary of relevant legislation is contained in Appendix 1.

### **UK and Local Biodiversity Action Plan (BAP) Habitats and Species**

Certain habitats and species are identified as priorities for protection and nature conservation through their inclusion on the Biodiversity List, under the NERC Act 2006 (see above). The Biodiversity List is largely consistent with those habitats and species identified as priorities under the UK Biodiversity Action Plan (BAP) and Local BAP (the Tees Valley Local Action Plan).

### **5.2 Impact on Designated Sites**

There are no statutory or non-statutory wildlife designations within the site. There are two geological SSSI's within a 2km search distance of the site – Coplow Quarry SSSI adjacent to the northern site boundary and Salthill and Bellmanpark Quarries SSSI approximately 250m to the south. No adverse impacts on these SSSI's are predicted as a consequence of development of the site. Salthill Quarry Local Nature Reserve is also located 250m south of the site. No direct impacts on the site are predicted and no significant indirect impacts, such as disturbance are anticipated.

### **5.3 Nature Conservation Status of the Habitats Present**

Of the habitats present within the site, the stream habitat is a UK BAP priority habitat (rivers and streams) and whilst the hedgerows are species poor, the ground flora associated with them is relatively diverse and would suggest that they are long-established. The site survey also identified lowland fen vegetation adjacent to the eastern site boundary which is a UK BAP priority habitat.

#### ***Recommendation:***

*It is recommended that the stream and fen habitats are protected from the direct and indirect impacts of development, including use:*

- *of an appropriately sized and designed buffer zone around the habitats*
- *lighting design methods to avoid light spill into these habitats*
- *appropriate boundary treatment that aims to sustain the undeveloped character of these habitats*
- *an appropriately designed surface water management regime which prevents adverse changes in ground water and surface water quality and flows as a consequence of the proposed development*
- *Where loss of any of these priority habitats cannot be avoided through careful site design, compensatory habitat creation works should be undertaken.*

*It is recommended that where feasible, hedgerows are retained within the proposed built environment with appropriate buffer zones retained around them to enable them to continue to function as wildlife corridors. Where hedgerows cannot be retained in situ compensatory habitat should be created within the site.*

## 5.4 Nature Conservation Status of the Species Present

### **Protected Species**

No species that are specially protected under the Conservation of Habitats and Species Regulations (Amendment) 2012 and/or the WCA (1981) have been recorded within the site. Targeted surveys for otter and water vole were undertaken with no evidence of the presence of these species found. The potential for breeding barn owl was assessed as low but with moderate potential for foraging. However, two trees within the site were classified as having a high risk of hosting roosting bats with other trees assessed as having a moderate potential.

### ***Recommendations:***

*Bats and their roosting places are afforded legal protection; as such it is advised that the following measures are taken with the aim of ensuring that any works undertaken to the trees on site are legally compliant:*

- *If the proposed development requires the pruning or felling of a category 2a tree, dusk and dawn surveys to establish the presence of bats in that particular tree would be required to inform any requirements for mitigation. If the presence of a roost is confirmed, the tree would be upgraded to a category 1 tree. Any trees with confirmed roosts will require an EPS<sup>5</sup> licence prior to arboriculture works. If the repeat survey did not confirm presence of a roost, the tree would be downgraded to a category 2b tree.*
- *If the proposed development requires the pruning or felling of a category 2b tree, this work must be carried out taking reasonable avoidance measures. The reasonable avoidance measures recommended for each category 2b tree are: the removal of any ivy before felling and the Appointed Ecologist to supervise soft fell lowering of limbs.*
- *Trees classified as category 3 in this study can be pruned or felled with no repeat survey work or mitigation, with regard to bats, considered necessary.*
- *In the event that bats, evidence of bats or additional potential roost features not identified during these surveys are observed within a tree with a category 2b or 3 classification prior to pruning or felling, all works should cease immediately and the Appointed Ecologist contacted for advice on how to proceed.*

*Compensation measures (i.e. bat boxes, new woodland planting) for the loss of any potential tree-roost features should be finalised in conjunction with the master-planning exercise.*

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<sup>5</sup> A European Protected Species (EPS) licence, if required, would include a detailed Method Statement describing how the works would be undertaken (in a manner that would avoid harming bats) and the measures that would be taken to compensate for the loss of the original roosts. EPS licences can only normally be granted following full planning permission and the EPS licence application process can take up to ten weeks.

### **Breeding Birds**

There is a high risk of breeding birds being present within the site, in particular associated with trees, hedgerows and shrubs, and the stream and marshy grassland habitat.

#### ***Recommendation:***

*Breeding birds and their nests are afforded legal protection from harm and disturbance under the Wildlife and Countryside Act 1981 (as amended). Where feasible no vegetation clearance should be undertaken during the bird breeding season (typically 1<sup>st</sup> March – 31<sup>st</sup> August). If shrub or tree clearance during this time is required then pre-clearance checks should be undertaken by a suitably qualified and experienced ecologist to confirm that no breeding birds or their nests will be affected by the works.*

### **BAP Priority Species**

No UK BAP priority species were observed as present on the site during the site survey, however, there is a high risk of toads being present and potentially priority bird species such as dunnock, song thrush, yellowhammer and possibly wetland birds such as Northern lapwing associated with the marshy grassland.

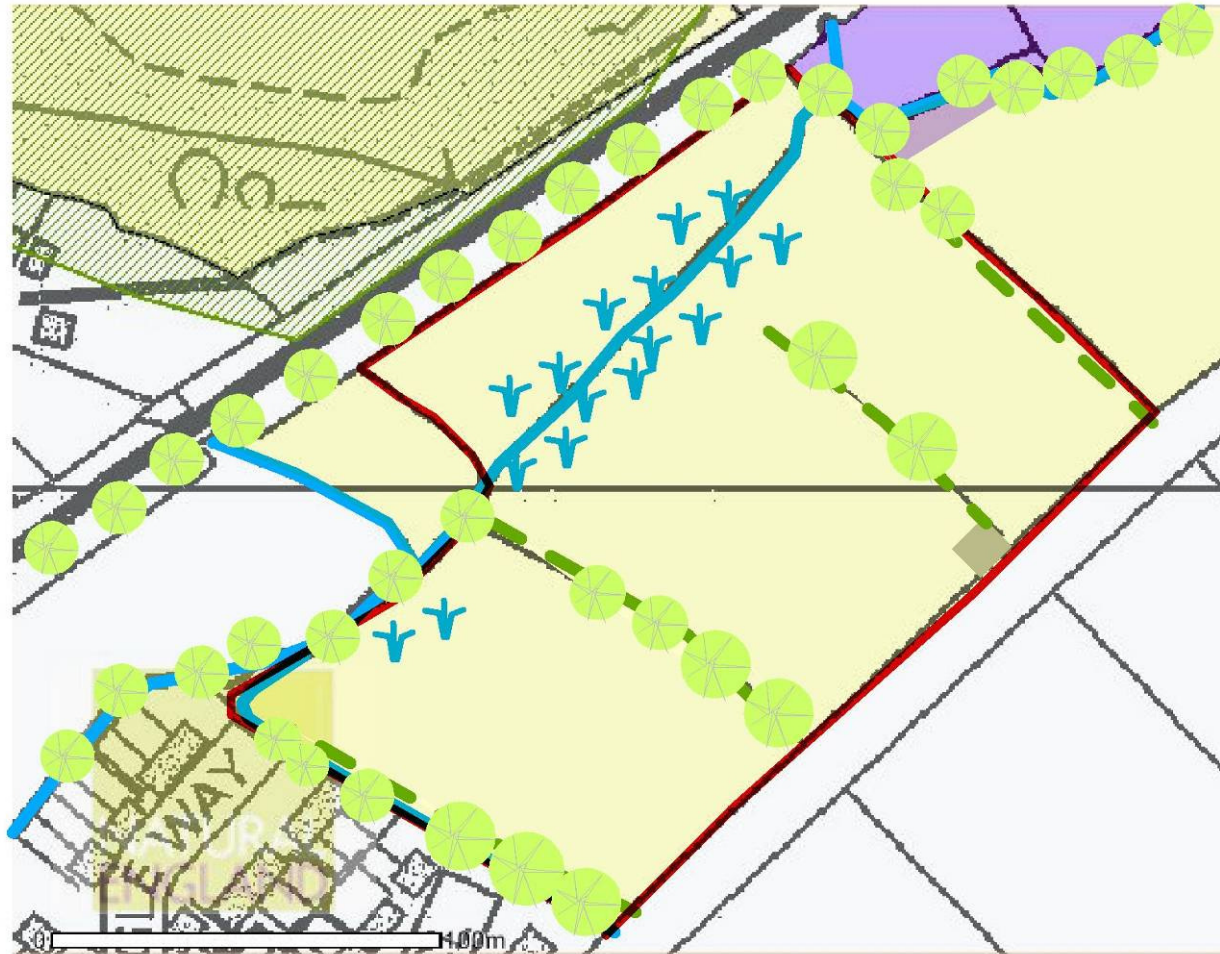
### **Invasive Weeds**

Himalayan balsam, a plant listed on schedule 9 of Wildlife and Countryside Act 1981, was relatively widespread within the site. Himalayan balsam is a non-native species which spreads rapidly into semi-natural habitats at the expense of native plants and associated animals.

#### ***Recommendation:***

*Measures are taken to control the spread of Himalayan balsam outside of the site in accordance with the requirements of Wildlife and Countryside 1981.*

Plan 1: Habitat Plan



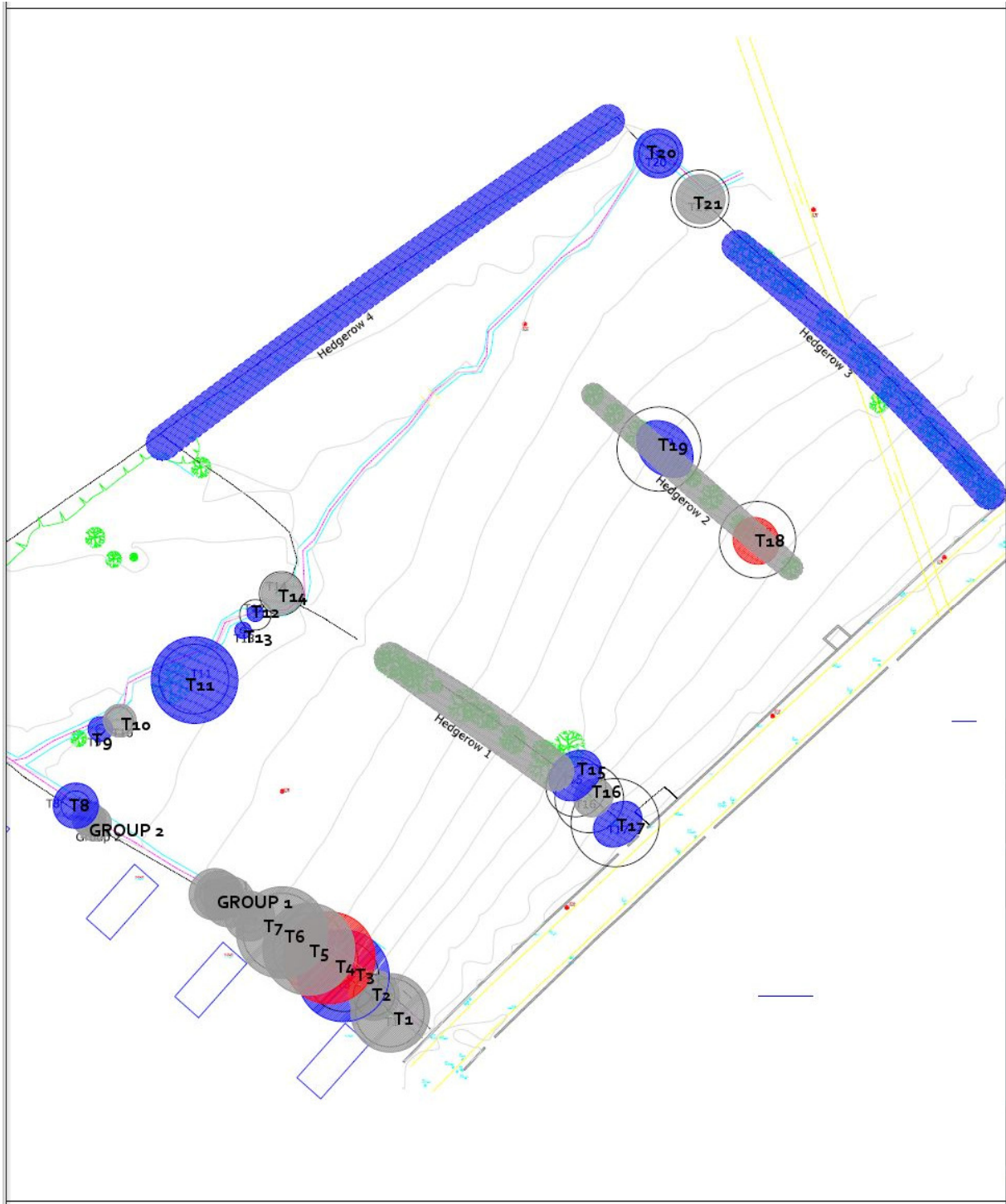
-  Building/hard standing
-  Trees (size and location indicative)
-  Semi-improved grassland
-  Fen
-  Marshy grassland
-  Stream
-  Hedge (defunct)
-  Survey Boundary

Project: Chatburn Road,  
Clitheroe  
Client: Oakmere Homes Ltd  
Title: Habitat Plan

Date: 22 April 13  
Ref: 2358 Habitat



Plan 2: Bat Risk Assessment of Trees Plan



## **Appendix 1: Summary of Wildlife Legislation and Relevant Planning Legislation**

Many species of British wildlife are legally protected or are afforded protection from the potentially harmful effects of some development through the planning system. The following section provides a brief overview of the protection afforded to species commonly encountered during development.

### **Birds**

All wild birds are protected against killing or injury under the WCA 1981 (as amended). This protection extends to birds nests during the breeding season, which makes it an offence to:

- Kill, injure or take any wild bird (with certain exceptions for recognised game or pest species)
- Take, damage or destroy the nests of any wild bird while it is in use or being built
- Take or destroy the egg of any wild bird

Birds that are listed on Schedule 1 of the Act receive additional protection against intentional or reckless disturbance during the breeding season. This makes it an offence to disturb these species at or near to their nesting site.

### **European Protected Species**

All bats, great crested newts and otter are European Protected Species (EPS). The European legislation is implemented in England via The Conservation of Habitats and Species Regulations (amendment) 2012. A full list of EPS is provided in Schedule 2 of the Regulations.

In summary this legislation makes it an offence to:

- Intentionally/deliberately kill, disturb, injure or capture the species
- Intentionally or recklessly damage, destroy or obstruct access to any breeding site or resting place.
- Possess or control any live or dead specimen or anything derived from a European Protected Species.

If an activity is likely to result in any of the above offences, derogation from the legal protection can, under certain restricted circumstances, be issued in the form of a European Protected Species licence.

EPS licences will only be issued if the following if the application complies with the following tests:

- The consented operation must be for “preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment”;
- There must be “no satisfactory alternative”; and
- The action authorised “will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range”

### **Protected Animals**

Some British animals receive protection under the Wildlife and Countryside Act (WCA) 1981 (as amended) with species listed on Schedule 5 afforded special protection. For most species on Schedule 5, the Act makes it an offence to intentionally kill, injure, or take, possess, or trade in the species and prohibits interference with places used for shelter or protection, or intentionally disturbing animals occupying such places.

## **Reptiles**

Common lizard, slow worm, grass snake and adder are protected only from unlawful killing under the Wildlife and Countryside Act 1981 (as amended). The rarer reptiles, including smooth snake and sand lizard are fully protected and any works affecting them can only be carried out if a Natural England licence has been issued.

## **Badgers**

Badgers are protected under the Protection of Badgers Act 1992. It is illegal to:

- Kill, injure, take, possess or cruelly ill-treat a badger or to attempt to do so;
- Interfere with badger sett by damaging or destroying it;
- Obstruct access to or any entrance of a badger sett;
- Disturb a badger when it is occupying a sett

A badger sett is “any structure or place that displays signs indicating current use by a badger. Natural England, the Government’s statutory nature conservation body, classifies a sett as active if it has been occupied within the last 12 months.

Operations that might cause disturbance of an active sett entrance can be carried out under licence from Natural England.

## **Planning Legislation as it Relates to Protected Species**

For activities requiring planning permission, the presence of protected species, such as those listed above, is a material consideration which must be fully considered by the Local Authority when granting planning permission. Local Authorities have been issued with ODPM Circular 06/2005 Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System, which provides further guidance on the application of the law as it relates to planning and nature conservation in England.

## **UK and LBAP Species**

Certain species are identified as priorities for protection and nature conservation through their inclusion on the Biodiversity List, under the Natural Environment and Rural Communities Act 2006. Public authorities have a duty to have regard to conserving biodiversity, under this Act, so far as is consistent with the proper exercise of its functions.

## **Hedgerow Regulations (1997)**

The Hedgerow Regulations gives local planning authorities (LPA) the right to designate ‘important hedgerows’ provided they meet certain specified criteria. Removal of designated ‘important hedgerows’ is prohibited under the Act. The status of hedgerows within the site under these regulations has not been checked as part of this survey, but can be either done directly by the land owners with the LPA or by PAEL on request.

## **The Town and Country Planning (Tree Preservation) (England) Regulations 2012**

Local planning authorities can place Tree Preservation Orders on trees and tree groups of high landscape and amenity value, which places restrictions upon tree works that an owner can legally undertake, including tree felling. The status of trees within the site under these regulations has not been checked as part of this survey, but can be either done directly by the land owners with the LPA or by PAEL on request.