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**ECOLOGICAL SURVEY & EVALUATION OF  
THE WHINS  
WHINS LANE  
READ Nr BURNLEY**

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WHINS LANE  
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*A report for*

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October 2012

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## **PART 1 INTRODUCTION:**

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### **1.1 REASONS FOR SURVEY:**

PENNINE *Ecological* have been commissioned by Bowsall Limited, to undertake an Extended Phase 1 Survey, Bat Survey and Ecological Evaluation of The Whins a residential property on Whins Lane, Read, Nr Burnley, Lancashire.

The study includes a vegetation survey, bat, badger and water vole survey, and also includes a full evaluation of the ecological significance of the survey findings. Potential for breeding bird and great crested newt habitation is also assessed.

A statement of potential impact and recommended mitigation measures are provided where appropriate.

The surveys are required due to a proposal to demolish the existing house and redevelop the land with twelve new houses.

### **1.2 SITE LOCATION:**

The locations of the habitats surveyed are shown on Map 1 in the Appendix.

### **1.3 SURVEY METHODOLOGY:**

#### **1.3.1 Extended Phase 1 Habitat Survey:**

An Extended Phase 1 Habitat Survey (*Nature Conservancy Council 1990*) of the study area was undertaken on 20<sup>th</sup> August 2012. The site's habitats were fully mapped and higher vascular plant species were recorded and given abundance values according to the standard DAFOR scale, where:

D = Dominant  
A = Abundant  
F = Frequent  
O = Occasional  
R = Rare

Where appropriate these values can be prefixed by the letter L (locally) or V (very), to provide more subtle biogeographical data.

#### **1.3.2 Bat Survey:**

The survey was conducted on the 20<sup>th</sup> August 2012, by licensed bat surveyor Kylee Wilding of the Tyrer Partnership professional bat consultants. The building was inspected for potential places that may be of value to bats and to determine if evidence of use was present.

The internal loft space in the building was searched for signs of use that might include droppings or remains of prey items. The external elevations were investigated from ground level, with the aid of close focusing binoculars, for places that are frequently used by bats as roosts or as access into roost chambers

The survey was conducted at a time when bats are nearing the end of their breeding season, at which time maternity colonies will generally begin to disperse. However, small numbers of bats, notably juveniles or singular males can still be present within a roost.

Following the survey, the results conclusions and recommendations are provided and are based upon surveyor experience and knowledge of bat ecology. The following points were considered.

- Knowledge of bat species relevant to the site location
- Nature of the immediate and surrounding habitat in relation to foraging opportunities
- Condition of the building
- Presence/absence of roost potential
- Value of roost potential – if present

During the survey the surrounding habitat was also evaluated in relation to bats as very often roost selection is closely correlated with the surrounding habitat.

The methodology follows guidance provided in Bat Surveys: Good Practice Guidelines - Bat Conservation Trust\*

\*See Hundt L (2012) *Bat Surveys: Good Practice Guidelines 2<sup>nd</sup> Edition*. Bat Conservation Trust

### **1.3.3 Badger Survey:**

The badger survey focused on land directly affected by the proposed development and was extended where possible to include land where badger setts might occur up to a distance of 30m from the boundary of the site.

The badger survey used standard techniques for establishing the use of the site by badger, and includes searches for evidence of badgers including:

- Setts
- Pathways
- Footprints
- Latrines
- Foraging areas
- Scratching posts

### **1.3.4 Water Vole Survey:**

The water vole survey was carried out on 20<sup>th</sup> August 2012, the survey is based on the standard methodology as outlined in the *Water Vole Conservation Handbook Second Edition*, Strachan, R. & Moorhouse, T. (2006).

Searches were made for the following signs;

- Sightings of individual animals
- Latrines
- Feeding stations

- Burrows
- Runs

The stream on the southern and eastern boundary was surveyed together with the adjacent vegetation up to 2m from the channel.

### **1.3.5 Other Species:**

In addition to the above, general assessments of the suitability of the site to support breeding birds and great crested newt were also undertaken as part of this study.

## **1.4 SURVEY CONSTRAINTS:**

### **1.4.1 Extended Phase 1 Habitat Survey:**

The survey was conducted at an optimum time for Extended Phase 1 Habitat Survey and there were no significant constraints.

### **1.4.2 Bat Survey:**

The survey was conducted within the bat breeding season and a full appraisal and inspection was achievable in relation to assessing the level of bat roost potential in the building.

Taking into consideration the above it is considered that there were no survey constraints that would prevent the gathering of information on which to base conclusions and recommendations.

### **1.4.3 Badger Survey:**

There were no constraints to the badger survey on the land affected by the proposal. Areas of grassland beyond the east and western boundaries of the site could not be accessed as they form the gardens of adjacent houses.

The land to the south is an open pasture and no constraints applied.

### **1.4.4 Water Vole Survey:**

Dense vegetation and the ambiguity of the stream course made surveying part of the southern boundary difficult locally. However the constraint is considered to be minor.

## **PART 2 SURVEY RESULTS:**

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### **2.1 DESK BASED STUDY:**

A request for ecological data was made to Lancashire Environment Record Network (LERN) to obtain details of any biological records relating to the site. The extent of the study is shown on the LERN The Whins Ecology Plan in the appendix.

Desk based studies were also undertaken to establish the presence of ponds within a 500m radius of the site, as part of a scoping study relating to great crested newt (GCN)

Natural England's 'Nature on the Map' website was referred to as a matter of course.

Species records supplied by LERN are not provided in the appendix as none relate directly to the study area.

The results of the desk study revealed the following information;

- The site has no statutory or non-statutory wildlife or ecological designations.
- There are no Sites of Special Scientific Interest (SSSI) within 1km of the site.
- There are no known waterbodies capable of supporting GCN within 250m of the site.
- None of the records supplied by LERN relate directly to the site.
- The nearest Biological Heritage Site is Huntroyde Demesne approximately 340m south-east of the site.

No other information or data is known for the site.

### **2.2 EXTENDED PHASE 1 HABITAT SURVEY:**

#### **2.2.1 General Description:**

The site of the proposed development is composed of extensive mature gardens, which have partly become overgrown and neglected. The habitats typically include amenity grasslands, ornamental shrub beds, stands/hedges of Leyland cypress and tall hedges of overgrown beech.

A small concrete ornamental fish pond is also present.

The overgrown roadside boundary hedge pre-dates the creation of the garden in the 1960s, as do a few mature broad-leaved trees. There is a mature conifer plantation on the southern side of the site, beyond which is a shallow boundary stream.

#### **2.2.2 Extended Phase 1 Habitat Survey Target Notes:**

*Survey locations, Target Notes and the proposed working area locations are shown on Map 1 in the Appendix.*

*Note: All species nomenclature follows Stace, C. (1996) 'New Flora of the British Isles' – definitive English names.*

**Target Note No: 1**

A defunct road-side boundary hedge dominated by hawthorn with occasional holly, hazel, laurel and prunus (var). The hedgerow has numerous gaps and also has a coarse flora dominated locally by Yorkshire-fog, creeping buttercup with locally abundant common nettle and ivy.

Several trees occur and include pedunculate oak, sycamore and ash.

**Target Note No: 2**

An extensive area of lawn surrounded on three sides by tall Leyland cypress and stands of introduced shrubs dominated by rhododendron. Three prunus (var.) and a domestic apple are present in the lawn.

The lawn is damp locally and contains species more typical of semi-natural grassland. Species recorded are listed below.

| <b>Species:</b>     | <b>Abundance:</b> |
|---------------------|-------------------|
| Yorkshire-fog       | D                 |
| Meadow-grass sp.    | D                 |
| Moss spp.           | A                 |
| Perennial rye-grass | A                 |
| Creeping buttercup  | A                 |
| Sweet vernal-grass  | A                 |
| Sneezewort          | VLA               |
| Oval sedge          | VLA               |
| Dandelion sp.       | VLA               |
| Selfheal            | LF                |
| Sheep's sorrel      | VLf               |
| Common sorrel       | O                 |
| Common cat's-ear    | O                 |

**Target Note No: 3**

A linear stand of coniferous plantation dominated by Leyland cypress with occasional poplar sp. There is a short understorey dominated by bramble with occasional garden privet and elder.

The ground flora has frequent common nettle and occasional lady fern, red campion and herb Robert.

**Target Note No: 4**

An area of damp tall ruderal herb dominated locally by great willowherb and creeping buttercup with abundant creeping buttercup and common nettle. Soft rush is locally frequent and sneezewort very occasional.

Bramble is has colonised the area and is now abundant.

There are several tall hedges of Leyland cypress and beech that have been 'absorbed into the woodland as it has matured.

**Abundance:**

|                         |    |
|-------------------------|----|
| Norway spruce           | A  |
| Pine sp.                | A  |
| Larch sp.               | A  |
| Ash                     | O  |
| Leyland cypress (hedge) | VO |
| Horse chestnut          | R  |

|                 |     |
|-----------------|-----|
| Elder           | VLD |
| Rhododendron    | VLD |
| Holly           | A   |
| Laurel sp.      | LF  |
| Ash (seedlings) | O   |
| Rowan           | VO  |
| Beech (hedge)   | VO  |

|                        |     |
|------------------------|-----|
| Ivy                    | LD  |
| Herb Robert            | VLF |
| Yorkshire-fog          | O   |
| Broad buckler-fern     | O   |
| Wood horsetail         | VO  |
| Male-fern              | VO  |
| Enchanter's nightshade | VLF |

**Target Note No: 6**

A narrow stream on the southern boundary of the site. The stream course is somewhat ambiguous due to the nature of the land surrounding the boundary which is saturated and composed of stands of tall ruderal herb and reed canary-grass. Most of this habitat is on the adjacent land which is cattle grazed/poached.

Dense stands of grey willow form the interface between the coniferous woodland and the stream zone.

**Target Note No: 7**

A mosaic of tall ruderal herb, improved grassland, dense/scattered bramble and reed canary grass. The stream forms the eastern boundary.

The area is overgrown and neglected except for the improved grassland which appears to be managed by an adjacent property.

**Target Note No: 8**

An extensive area of lawn that receives significant shade from the woodlands and tall hedges on all but the northern aspect. Two silver birch are present in the lawn.

In common with the lawn at the front of the house, the lawn is damp and contains species more typical of semi-natural grassland. Species recorded are listed below.

| <b>Species:</b>             | <b>Abundance:</b> |
|-----------------------------|-------------------|
| Yorkshire-fog               | LD                |
| Moss spp.                   | LD                |
| Red fescue                  | A                 |
| Creeping buttercup          | A                 |
| Soft-rush                   | VLA               |
| Greater bird's-foot-trefoil | VLA               |
| Oval sedge                  | O                 |
| Common cat's-ear            | O                 |
| Self-heal                   | O                 |

**Target Note No: 9**

A small rectangular garden pond that used to have a population of Koi carp, however predation by herons have now reduced the population to extinction. The pond is estimated to be <1m deep and has a surface cover of common duckweed with occasional ornamental water lily.

**Target Note No: 10**

Dense stands of scrub dominated by bramble with localised grey willow. Mature oak, occasional immature ash and a Leyland cypress hedge occur here.

**Phase 1 Site Photographs:**



**P1: The front gardens. (See Target Note 2)**



**P2: The rear gardens with conifer plantation in the background. (See Target Note 8)**



**P3: Land on the southern boundary outside of the proposed development area. (See Target Note 6)**



**P4: Conifer plantation on southern boundary of the site. (See Target Note 5)**

## 2.3 BAT SURVEY:

### 2.3.1 Survey Details & Results:

The Whins stands within its own extensive grounds approximately 2.5 km south east of Padiham. The property is located in close proximity to other residential properties within a mainly rural environment. The building is an occupied detached dwelling set within mature gardens that contain numerous ornamental trees and shrubs with more mature trees and a small coniferous wooded area along the south-west perimeter of the site.

The surrounding and associated habitat includes open pasture to the south-east of the property and further woodland noted approximately 0.12 km north of 'The Whins'.

All of the previously identified habitats can be considered as being of value for foraging bat species, and where such habitats are present close to buildings, then the percentage use of those buildings by bats increases due to roost opportunities and foraging being available in close proximity to each other.

The building is a large detached dormer bungalow constructed in stone with a tile pitched roof and outrigger to the south elevation. The property is currently occupied and is in a reasonable internal and external condition. Within the building two adjoining loft spaces are present, the first section is divided into two compartments and found to be of approximate dimensions of 9 metres long x 11 metres wide x 2.5 metres high.

The loft was found to be neither light-filled or draughty, and therefore offers potential for loft dwelling bats, typically Brown Long Eared (*Plecotus auritus*), as this is a species that favours a large loft space that allows free flight. In addition, the immediate and extending habitat surrounding the site is considered to be particularly suitable for this species' specific foraging requirements. However, no recent or historic evidence of this species was located within the loft space.

The second loft area is smaller than the first as it has previously been converted to provide additional living accommodation. The loft is a long and narrow void of approximately 7 metres long x 3 metres wide x 1.5 metres high, and due to its restrictive size is considered generally unsuitable for loft dwelling bats. No recent or historic evidence of bats was found in this area.

Whilst investigating both of the loft compartments it was noted that underfelt is present beneath the roof tiles, which significantly increases the potential for crevice dwelling bats, such as the Pipistrelle (*Pipistrellus*). This species often roosts between the gaps of the two materials, subject to external access being available.

In addition, the breeding roosts of Pipistrelle bats are proportionally higher in occupied residential dwellings, where the warm dry conditions favour the requirements of a maternity colony, however other structures are also used for other roost purposes.

During the external inspection it was noted that the roof and ridge tiles fit tightly to the front (north) elevation with little potential for bats to access. A single but small gap is present between the soffit and stone work to the elevation next to the garage, however, it is heavily cobwebbed with no signs of recent disturbance.

In comparison to the front elevation, the rear (south) elevation offers a number of opportunities for bat access, notably where a large section of roof tiles have slipped. In addition, potential was also identified around the roof lights and small areas of lead flashing. All of the previously mentioned areas that were identified during the daytime survey are typical places favoured by crevice dwelling bats.

The trees on site were also examined for roost potential. Most trees are conifers with no obvious holes/fissures with bat potential, mature broad-leaved trees are rare.

The survey revealed an absence of potential roost sites in the trees surveyed.

### **2.3.2 Survey Conclusions:**

Although evidence of use by bats was not found during the daytime investigation, roost potential and ingress opportunities for crevice dwelling bats has been identified within the property, most notably at the rear elevation.

The potential bat roosts identified at the building could be used for more than one roost purpose, and roost potential is considered to be medium – high, based on the combination of suitable foraging habitat and the level of bat roost potential found.

The survey findings indicate that additional dusk and/or dawn surveys are required to be undertaken to establish how bats, if present, are using the site.

**Bat Survey Site Photographs:**



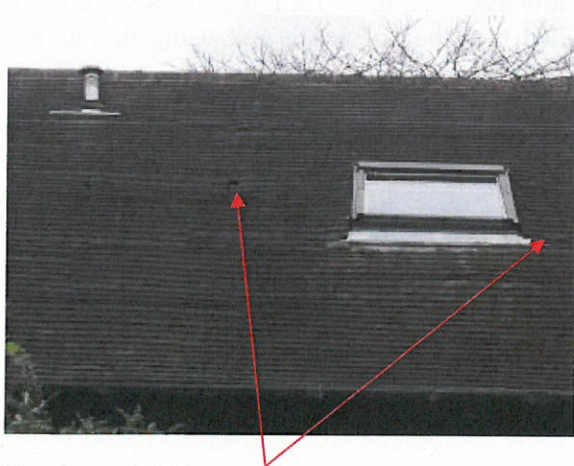
**P5 & 6 Front (north) & rear (south) elevations of 'The Whins' proposed for demolition**



**P7: Small gap present between the soffit & stone to the front elevation**



**P8: Large section of opportunity to the rear elevation beneath the tiles**



**P9: Potential identified around the roof lights & under roof tiles**



**P10: Immediate habitat within the garden to the rear of the property**

## **2.4 BADGER SURVEY:**

### **2.4.1 Survey Details and Results:**

The badger survey employed standard techniques to establish if badgers are present on site or use the site for foraging/commuting. (See Section 1.3 Survey Methodology)

The following searches were undertaken.

- Searches for setts on and off site for up to 30m where possible.
- Searches for foraging signs and pathways.
- Boundary searches for runs, pathways and latrines.

The survey results are outlined below.

#### Sett Search:

The survey found no setts on site and no visible sign of setts on the adjacent land to the south.

The grassland to the north is separated from the site by Whins Lane and was searched from the roadside only. The grassland had recently been cut and no sign of badger activity was recorded.

The land to the east and west is largely composed of the gardens of the adjacent residential properties and were not searched. A small part of the eastern boundary is a cattle-grazed pasture and was viewable from the site boundary, no setts or other sign of badger activity was observed.

Based on the above it can be concluded that it is very unlikely that there are badger setts within 30m of the site.

#### Search for Foraging Signs and Pathways:

The site was thoroughly searched for badger pathways or signs of foraging. No sign of badger activity was found therefore it can be concluded that the species is not using this area for foraging or commuting.

#### Boundary Search:

All of the boundaries of the site where accessible were walked and examined for potential runs, pathways and latrines. The search found no evidence to suggest badger activity along any of the site boundaries.

The absence of any obvious means of ingress indicates that badgers are not entering the site. The absence of latrines indicates a lack of territorial activity in the near vicinity of the site.

### **2.4.2 Survey Conclusions:**

The survey found no evidence of historic, recent or current use of the site by badgers for foraging, commuting or occupation and the species is considered to be absent.

## **2.5 WATER VOLE SURVEY:**

### **2.5.1 Survey Results:**

The stream on the southern and eastern boundaries of the site was surveyed using the standard method for establishing the presence/absence of water vole. The stream to the south is narrow and shallow and follows a rather ambiguous course through saturated ground supporting stands of tall ruderal herb and reed canary-grass. Most of this habitat, including a section of the stream, is on the adjacent land which is cattle grazed/poached.

Two small sections of the stream occur in the wooded part of the garden close to the eastern boundary of the site. The banks here are heavily shaded and largely devoid of vegetation, emergent stands are also absent.

The survey revealed no evidence of current or historical occupation by water vole on the sections surveyed, and whilst part of the southern stream section is potentially suitable, the species is considered to be absent.

### **Water Vole Survey Photographs:**



**P11: Stream on the southern boundary**



**P12: Wooded section of stream.**

## **2.6 BIRDS:**

### **2.6.1 Bird Evaluation:**

Bird surveys were not undertaken as part of this survey due to the late season, instead records were made of birds seen/heard and an evaluation of the sites potential undertaken.

The following birds were recorded (visually/aurally) on the site.

Blackbird  
Magpie  
Great tit  
Blue tit  
Bullfinch  
Chaffinch  
Robin  
Wren  
Wood pigeon

The birds recorded above are considered to be reasonably representative of the species that might use the site for breeding and foraging, given the size and maturity of the gardens on site.

Formal surveys undertaken in spring would probably reveal additional species and provide data on the number of pairs present. However given the location, size and the nature of the habitats affected by the proposal, even if surveys were undertaken they are not predicted to reveal a bird population any greater than site-local significance.

## **2.7 GREAT CRESTED NEWT:**

### **2.7.1 Great Crested Newt Evaluation:**

#### **On-site Ponds:**

There is small artificial rectangular pond on the southern edge of the back lawn to the property. (See Target Note 9). The pond is a former ornamental fish pond, however it is understood that most if not all of the fish have now been predated by herons.

The pond is approximately 4m<sup>2</sup> in extent and potential for great crested newt (GCN) is considered to be low.

A Habitat Suitability Index (HSI) survey was undertaken to assess general suitability for GCN at the pond, and the findings are presented in Section 2.6.2 below.

#### **Off-site Ponds:**

Reference to Ordnance Survey maps indicated that there is a pond (a former mill lodge) within a housing estate approximately 325m from the site boundary. There is no formal access to the pond except through private gardens, therefore the pond was not accessed. However a resident whose property abuts the lodge confirmed that a substantial population of large fish, probably carp, is present.

There is a second pond in a nearby disused quarry approximately 500m north-east of the site boundary. The pond was visited to assess its potential to support great crested newt (GCN) and to determine if survey was required. A general description is provided below

The pond is located on the quarry floor and is heavily shaded by broad-leaved woodland within and surrounding the quarry. Trees and shrubs are also growing from the area defined as a pond.

At the time of the visit, the pond was shallow <0.2m and is known to dry out during summer. The pond area was found to be roughly 60% smaller than that shown on site plans, and consists of a series of small, irregular shaped pools of water, and despite heavy rain the previous night the pond remained in a shallow semi-dry state.

There is no aquatic or emergent vegetation to suggest any permanence in the pond.

Based on the site visit, the impermanence of the pond even in a year of particularly high rainfall, creates highly unsuitable conditions for amphibians, with the possible exception of common frog, a species that needs shallow water and spawns early in the year.

This pond was also subject to a Habitat Suitability Index (HSI) survey was undertaken to assess general suitability for the species. (See below).

### **2.7.2 Habitat Suitability Index Survey:**

A Habitat Suitability Index (HSI) survey was undertaken to assess general suitability for the species using a recognised methodology. HSI cannot be used instead of standard

'Presence/Absence' survey, however it is a useful tool for assessing the likelihood of GCN being present in a pond.

The HSI was undertaken on the garden pond and the quarry pond only. The former mill lodge could not be accessed.

#### Garden pond HSI Score 0.51

The HSI score is on the threshold between 'poor' and 'below average' which is marginally higher than was expected given its artificiality, small size and relative recent origin and isolation.

#### Quarry Pond HSI Score 0.18

The HSI of the quarry pond returned a score of 0.18 which is rated at the lower end of 'poor' as defined by the HSI.

The categorisation of HSI scores is provided below.

#### Categorisation of HSI scores

##### HSI Pond suitability

|            |                 |
|------------|-----------------|
| <0.5       | = poor          |
| 0.5 – 0.59 | = below average |
| 0.6 – 0.69 | = average       |
| 0.7 – 0.79 | = good          |
| > 0.8      | = excellent     |



**P13: The Garden Pond**

## **PART 3 ECOLOGICAL EVALUATION:**

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### **3.1 EVALUATION OF SURVEY FINDINGS:**

The following section evaluates the site in relation to statutory/non-statutory sites, protected species and species/habitats listed on the UK Biodiversity Action Plan Priority List, Section 41 Species/Habitats of Principal Importance in England (NERC) Act 2006, and the Lancashire Biodiversity Action Plan.

#### **3.1.1 Statutory Sites:**

There are no statutory wildlife sites within 1 km of the site.\*

(\*Source – Nature on the Map)

#### **3.1.2 Biological Heritage Sites:**

The area affected by the proposed works fails to meet any of the guidelines for selection associated with the Lancashire Biological Heritage Site scheme.

#### **3.1.3 Protected Species:**

Potential for bat habitation exists in the house and is considered to be of medium-high potential.

There are no badger setts on site and there is no evidence of badger foraging on site or runs entering the site through boundaries.

There is no current or historical evidence of water vole occupation at the stream on or adjacent to the site.

The survey revealed a ornamental garden pond on the site that has a HSI score on the threshold between 'poor and 'below average'. Given the ponds isolation from any other ponds and its historical use as a Koi carp pond, the pond is considered unlikely to support GCN.

Desk-based studies and field surveys indicate that there are no potential great crested newt (GCN) ponds within 250m of the site. The nearest pond is understood to be a private mill lodge located in the centre of a housing estate approximately 325m south-west of the site.

A typical range of common garden birds might use the woodland, trees and shrubs as nest sites. The bird populations present are not considered to exceed site-local significance.

#### **3.1.4 Biodiversity Action Plan (BAP) Habitats and Species:**

Bullfinch was recorded during the survey and is a UK BAP species. The breeding status of this species is not known.

There are no other UK BAP habitats or species clearly associated with the site.

### **3.1.5 Section 41 (S41) Habitats and Species of Principal Importance in England Natural Environment and Rural Communities (NERC) Act 2006:**

With the exception of bullfinch, a S41 species, there are no other S41 habitats or species associated with the site.

### **3.1.6 Lancashire Biodiversity Action Plan Habitats & Species:**

The gardens of the site have a minor affinity with the LBAP Urban Habitat Plan - Private Gardens. The lack of affinity relates to the rural, rather than urban nature of the gardens concerned.

No other LBAP habitats or species are affected by the proposal.

## **3.2 SUMMARY EVALUATION:**

### **3.2.1 Vegetation – Habitats and Species:**

The survey found no habitats of obvious high biodiversity value. The habitats present are common and include mature landscaped gardens and an area of wet neglected land containing a narrow and ambiguous stream.

A strip of coniferous plantation forms much of the southern boundary of the site.

The gardens of the site have a minor affinity with the LBAP Urban Habitat Plan - Private Gardens.

In biodiversity terms the habitats are collectively of site-local value only.

### **3.2.2 Bats:**

The house has medium-high potential for roosting bats.

### **3.2.3 Badgers:**

There is no evidence of badger occupation/use on the site or where visible off site. The species is considered to be absent in the immediate locality.

### **3.2.4 Water Vole:**

The survey revealed no evidence of current or historical water vole occupation on or near to the site.

### **3.2.5 Birds:**

The site is of site-local value to nesting birds and a numbers of common birds might use the woodland, trees and shrubs as nest sites.

Bullfinch is a UK BAP/S41 species, its breeding status at the site is unknown.

### **3.2.6 Great Crested Newt:**

Survey by HSI indicates very poor conditions for GCN in the pond in the adjacent quarry, and the possibility of GCN being present is considered to be remote.

There are no other ponds within 250m of the site.

## **PART 4 RECOMMENDATIONS:**

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### **4.1 HABITATS:**

The proposed works will only directly affect small areas of common habitats of site-local value and no further habitat surveys are recommended.

### **4.2 FAUNA:**

#### **4.2.1 Badger:**

There was a total absence of any evidence of activity that could be associated with badger on the site. Therefore no further survey in respect of badger is recommended.

#### **4.2.2 Water Vole:**

There was no evidence to indicate any current or historical occupation of water vole on or near the site, and no further surveys are recommended.

#### **4.2.3 Bats:**

The survey findings indicate medium – high bat potential, therefore dusk and/or dawn surveys must be undertaken at the site prior to any demolition work to establish how bats, if present, are using the site.

The surveys must be undertaken during the active season of bats i.e. between May – August.

Given that bat roost potential is medium – high, three surveys are required as bats, particularly Pipistrelle, often alternate between roosts and do not necessarily occupy a single roost over the entire breeding season.

(See table 8.5 below - extract from Bat Conservation Bat Surveys: Good Practice Guidelines)

**Table 8.5 Minimum number of presence/absence survey visits required to provide confidence in negative preliminary roost assessment results from buildings, built structures and trees in summer.**

| <b>High roost potential</b>                                                                                                                                                                                   | <b>Low to moderate roost potential</b>                                                                 | <b>Low roost potential</b>                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| 3 dusk emergence and/or pre-dawn re-entry surveys during May to September<br>Optimum period May-August                                                                                                        | 2 dusk emergence and/or pre-dawn re-entry surveys during May to September<br>Optimum period May-August | 1 dusk emergence and/or pre-dawn re-entry surveys during May to September<br>Optimum period May-August |
| If bats are discovered emerging from any of the buildings during surveys, the survey schedule should be appropriately adjusted to increase the survey effort so that sufficient information can be collected. |                                                                                                        |                                                                                                        |
| <b>Note: Two surveys carried out within the same 24 hour period constitute 1 survey</b>                                                                                                                       |                                                                                                        |                                                                                                        |

#### **4.2.4 Birds:**

Small numbers of common birds might breed in the trees and shrubs within the garden. Surveys in spring/summer are considered unlikely to reveal any population greater of site-local significance, therefore additional surveys are not recommended.

Whilst additional surveys are not recommended, it is essential that impacts on nesting birds are avoided, therefore if any of the trees need to be removed, then this must be done outside of the bird breeding season during September-February. Removal in the period March-August must not be undertaken unless an ecologist has inspected the site and deemed the trees/shrubs to be clear of nesting birds.

#### **4.2.5 Great Crested Newt:**

The ornamental garden pond on the site has a HSI score on the threshold between 'poor and 'below average'. Given the ponds isolation from any other ponds and its historical use as a Koi carp pond, the pond is considered unlikely to support GCN.

Desk-based studies and field surveys indicate that there are no potential great crested newt (GCN) ponds within 250m of the site.

Based on the above, no further surveys are recommended.

## **PART 5 REFERENCES:**

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### **5.1 REFERENCES:**

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Strachan, R. & Moorhouse, T, (2006) *Water Vole Conservation Handbook Second Edition*. Wildlife Conservation Research Unit.

### **Web Sites:**

Biodiversity Planning Toolkit - Association of Local Government Ecologists (ALGE) et al.

DEFRA

Google Earth.

JNCC

Lancashire Biodiversity Partnership website.

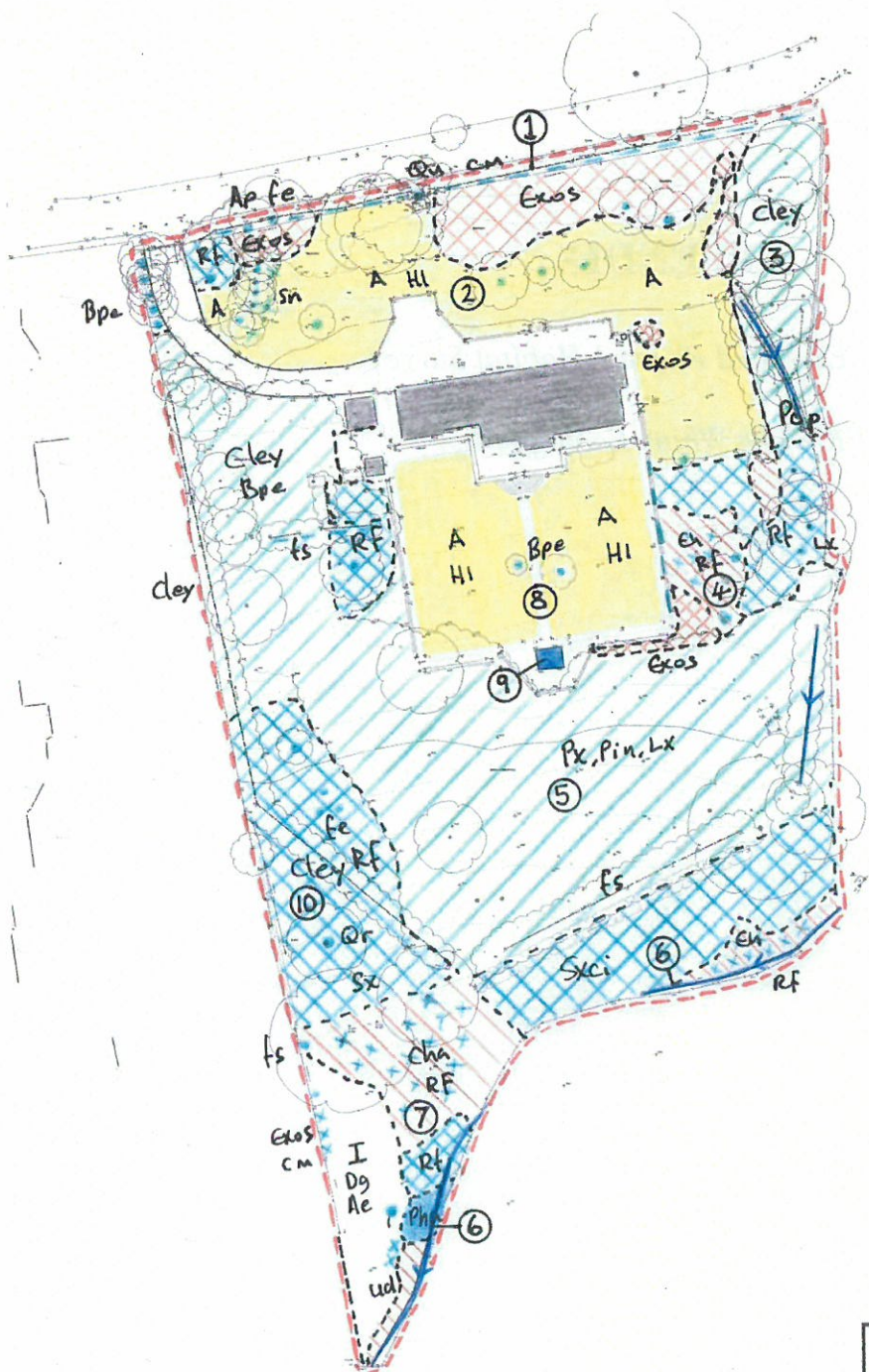
MARIO.

Natural England – Nature on the Map.

## **APPENDIX:**

*Map 1: Extended Phase 1 Habitat Survey*

*LERN The Whins Ecology Plan*



| Key: | Habitat Colour Codes:           |
|------|---------------------------------|
|      | Coniferous plantation woodland  |
|      | Dense scrub                     |
|      | Scattered scrub                 |
|      | Scattered trees - broad-leaved  |
|      | Improved grassland              |
|      | Tall ruderal herb               |
|      | Swamp vegetation                |
|      | Standing water                  |
|      | Running water                   |
|      | Introduced shrub                |
|      | Amenity grassland               |
|      | Defunct hedgerow - species-poor |
|      | Buildings                       |
|      | Target notes 1-10               |
|      | Survey boundary                 |

| Key: | Dominant Species Codes |
|------|------------------------|
| Ae   | False oat-grass        |
| Ap   | Sycamore               |
| Bpe  | Silver birch           |
| Cha  | Rosebay willowherb     |
| Cley | Leyland cypress        |
| Cm   | Hawthorn               |
| Dg   | Cock's-foot            |
| Eh   | Great willowherb       |
| Exos | Exotic/Introduced sp.  |
| Fe   | Ash                    |
| Fs   | Beech                  |
| HI   | Yorkshire-fog          |
| Lx   | Larch sp.              |
| Pha  | Reed canary-grass      |
| Pin  | Pine sp.               |
| Pop  | Poplar sp.             |
| Px   | Spruce sp.             |
| Qr   | Pedunculate oak        |
| Rf   | Bramble                |
| Sn   | Elder                  |
| Sx   | Willow spp.            |
| Sxci | Grey willow            |
| Ud   | Common nettle          |

Job title:  
**Ecological Survey & Evaluation of The Whins**  
 Whins Lane, Read, Nr Burnley

Job Ref: N/A

### Map 1: Extended Phase 1 Survey Map

DRAWN:  
 Ian Ryding

SCALE:  
 Not to scale

DATE:  
 20<sup>th</sup> August 2012



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