

Extended Phase 1 Habitat Survey

At

Serpentine Road, Cleckheaton, West Yorkshire,
BD19 3HU



Address	Serpentine Road, Cleckheaton, West Yorkshire, BD19 3HU		
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Report Date	23 February 2016	Quality Checked	Jonathan Jones
Scope of Report	Extended Phase 1 Habitat Survey		







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Contents

Executive Summary	3
1.0 Introduction.....	4
2.0 Legislation, Policy and Conservation Status	5
3.0 Methodology	9
4.0 Results: Desktop Survey.....	11
5.0 Results : Field Survey - Plants and Habitats	12
6.0 Results : Field Survey - Fauna.....	13
7.0 Ecological Value and Impact Assessment	15
8.0 Recommendations & Conclusion	17
9.0 References	18

Appendices

Appendix I	Habitat Survey Plan
Appendix II	DMRB Assessment Criteria
Appendix III	Species List and Target Notes
Appendix IV	Ecological Data Search Results
Appendix V	Photographs
Appendix VI	Survey Calendar

Executive Summary

An Extended Phase 1 Habitat Survey was carried out at Serpentine Road, Cleckheaton, BD19 3HU by Victoria Telford B.Sc (Hons) M.Sc GradCIEEM, Graduate Ecologist employed by Innovation Group Environmental Services on Tuesday 16th February 2016.

The survey was carried out on behalf of McCarthy and Stone Retirement Lifestyles Ltd to assist a planning application to build later living apartments as well as a care home and a row of townhouses with associated car parking and garden areas.

Habitat types were assessed for their importance/rarity at National, Regional or Local Level and for their potential to support European Protected and/or Notable species.

The site comprises hardstanding consisting of concrete poured bases and loose rubble resulting from the demolition of the industrial buildings which previously occupied the site. Now only two built structures remain; an open structure supported by metal frames and joists, and a former residential building. The boundaries, rubble and some areas of concrete have become colonised by tall ruderal species dominated by *Buddleia sp.* The site is enclosed by hoarding.

Overall the site has been classed of low ecological value. The former residential building is classed as having Low Bat Roost Potential (LBRP) supporting few features suitable for roosting bats. Aside from this, the site only has potential to support common invertebrates and nesting common garden birds only. Additionally, there is a stand of dead canes with physical characteristics associated with Giant Hogweed and Japanese Knotweed.

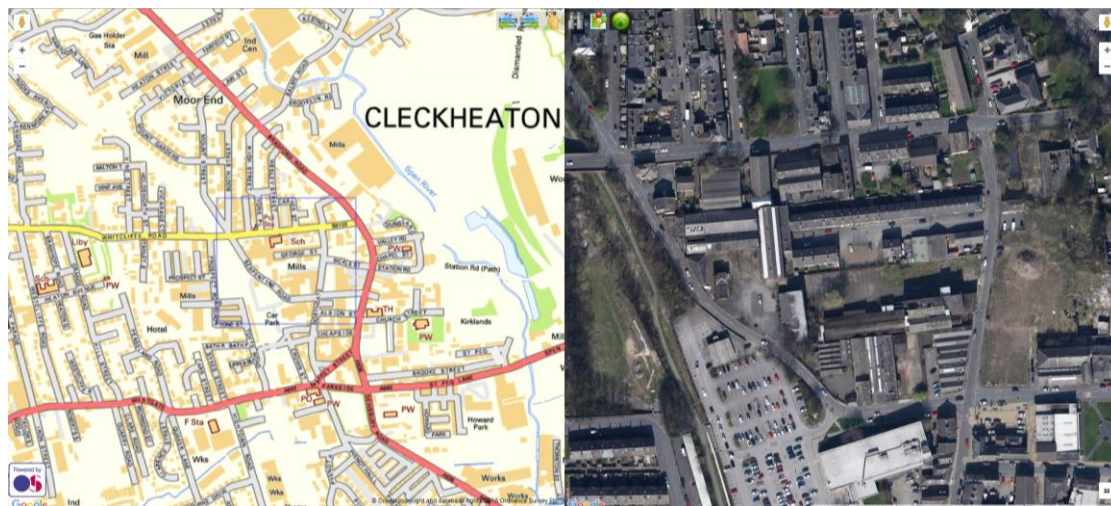
With the above taken into account, the following recommendations have been made;

- A minimum of one bat absence/presence survey of the building to take place between May – September, preceded by an internal check;
- Invasive plant survey of whole site between April – October;
- Vegetation removal and removal of the built structures to take outside bird nesting season, or checked by suitably qualified person prior to removal;
- Bat and bird boxes to be included in proposed development design.

Full details of recommendations are given in section 8.

1.0 Introduction

Environmental Services were commissioned by McCarthy & Stone Retirement Lifestyles Ltd to undertake an Extended Phase One Habitat Survey; the survey is required in relation to a planning application at Serpentine Road, Cleckheaton, West Yorkshire. The site is centred at Ordnance Survey Grid Reference SE 188 255.



OS. Licence No.100043218

1.1 Site Description

A drawing of the development area is included within Appendix I and comprises hardstanding consisting of concrete poured bases and loose rubble resulting from the demolition of the industrial buildings which previously occupied the site. Now only two built structures remain; an open structure supported by metal frames and joists, and a former residential building. The boundaries, rubble and some areas of concrete have become colonised by tall ruderal species dominated by *Buddleia sp.* The site is enclosed by hoarding.

1.2 Scope of Survey

We have been instructed to undertake an Extended Phase 1 Habitat Survey; this is not a survey for the purposes of The Wildlife and Countryside Act 1981 (Variation of Schedule 9 or Schedule 9) (England and Wales) Order which came into force on 6 April 2010 or National Vegetation Classification. This report has been produced with reference to current guidelines for preliminary ecological appraisal (CIEEM, 2012) and in accordance with BS42020:2013: Biodiversity – Code of Practice for Planning and Development.

We have been advised that the site will be stripped to allow the construction of later living apartments, a care home and a row of townhouses, with associated car parking and garden areas.

The scope of the report is to assess the site and map all habitats present. In addition to this, recommendations have been made based upon the findings of the survey in relation to European protected or notable species and any phase 2 survey work required satisfying planning requirements.

1.3 Limitations

All of the species that occur in each habitat would not necessarily be detectable during survey work carried out at any given time of the year, since different species are apparent during different seasons. Phase 1 habitat surveys can be undertaken at any time of the year; however, the optimum time of year for these surveys to be undertaken is between April and September (inclusive).

This survey was undertaken during the sub-optimal time of year which reduces the efficiency of the vegetation surveying. However, conditions are still more than adequate to classify the habitats at the level required for the survey effort and carry out a risk assessment for potential protected and priority species that could be present on site.

2.0 Legislation, Policy and Conservation Status

2.1 Planning and Biodiversity

Local Authorities have a requirement to consider biodiversity under the following European legislation:

- Natural Environment and Rural Communities (NERC) Act (2006);
- The Habitats Directive (EC directive 92/43/EEC);
- Environmental Impact Assessment (85/337/EEC as amended by directive 09/31/EC);
- Strategic Environmental Assessment (2001/42/EEC);
- The Environment Act (1995).

Section 40 of the Natural Environment and Rural Communities Act 2006 (the NERC Act) places a legal duty on public bodies, including planning authorities, to 'have regard' to the conservation of biodiversity when carrying out their normal functions, which includes consideration of planning applications.

In compliance with Section 41 of the NERC Act, the Secretary of State has published a list of species and habitats considered to be of principal importance for conserving biodiversity in England under the UK Post-2010 Biodiversity Framework. This is known as the England Biodiversity Priority (EBP) list, previously referred to as Local Biodiversity Action Plan (LBAP), of which there are 56 habitats and 943 species (Natural England, 2014). The EBP list is used to guide planning authorities in implementing their duty under the NERC Act.

Local Authorities must also have regard for the following national planning policies:

- National Planning Policy Framework (NPPF) (DCLG, 2012);
- ODPM Circular 06/2005 (Defra Circular 01/2005);
- ODPM (March 2006) Planning for Biodiversity and Geological Conservation.

The Kirklees Council Draft Local Plan, adopted in November 2015, also contains the following relevant local biodiversity objectives and targets:

- All new development shall be designed to incorporate and enhance biodiversity and geodiversity interest where relevant to these interests. Proposals shall safeguard, enhance and develop a robust and functional Wildlife Habitat Network at a local and wider landscape scale. Biodiversity enhancement measures shall be designed to reflect the priority habitats and species listed for the relevant Biodiversity Opportunity Zone.

2.2 Legalisation and Local Policy Documents

Relevant legislation (as amended) and policy documents that have been consulted are detailed below:

- Wildlife and Countryside Act 1981 (as amended);
- The Conservation of Habitats and Species Regulations 2010;
- The Countryside and Rights of Way Act 2000;
- Natural Environment and Rural Communities Act 2006;
- The Protection of Badgers Act 1992;
- The Hedgerow Regulations 1997;
- UK Post-2010 Biodiversity Framework;
- National Planning Policy Framework (NPPF);
- Kirklees Council Local Plan;
- Kirklees Local BAP.

2.3 Species Legislation

2.3.1 Bats

All species of bat and their breeding sites or resting places (roosts) are protected under Schedule 2 of The Conservation of Habitats and Species Regulations 2010 and Section 9 of the Wildlife and Countryside Act 1981 (as amended). It is an offence for anyone to:

- intentionally to kill, injure or handle a bat;
- possess a bat (whether live or dead);
- disturb a roosting bat, or sell or offer a bat for sale without a licence; or

- damage, destroy or obstruct access to any place used by bats for shelter, whether they are present or not

(Natural England, 2016)

A roost is protected whether or not bats are present and any activity or works affecting a roost, even when bats are absent, is likely to be subject to the relevant licence procedure with Natural England.

2.3.2 Water Vole (*Arvicola amphibious*)

The Water Vole has historically received limited protection through inclusion on Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). On the 6th April 2008 legal protection of this species was extended as such it is now an offence to:

- intentionally kill, injure or take (capture) a water vole;
- possess or control a live or dead water vole, or any part of a water vole;
- intentionally or recklessly damage, destroy or obstruct access to any structure or place which water voles use for shelter or protection or disturb water voles while they are using such a place; or
- sell, offer for sale or advertise for live or dead water voles.

(Natural England, 2016)

2.3.3 Otter (*Lutra lutra*)

Otters are currently increasing in number and distribution after a prolonged period of decline. They receive protection under both the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2010. Otters and their resting places are fully protected, it is an offence to:

- deliberately, capture, injure or kill them;
- to damage, destroy or obstruct their breeding or resting places;
- or to disturb otters in their breeding or resting places.

(Natural England, 2016)

There is, however, provision within the legislation to kill, take, disturb or possess otters or to use prohibited methods to kill or take under a licence in certain defined circumstances, if the issue cannot be resolved by any alternative means.

2.3.4 Great Crested Newts (*Triturus cristatus*)

Great Crested Newts (GCNs) are protected under Schedule 2 of The Conservation of Habitats and Species Regulations 2010 and Sections 9(1) and 9(4) of the Wildlife and Countryside Act 1981 (as amended).

The above makes it an offence to:

- deliberately capture, injure or kill a great crested newt;
- damage any place used for shelter or protection by the species, including breeding ponds and terrestrial habitats; or
- intentionally or recklessly disturb a great crested newt whilst it is occupying a place of shelter.

(Natural England, 2016)

The legislation applies to all stages of the life cycle including eggs, larvae and juveniles.

2.3.5 Hazel Dormouse (*Muscardinus avellanarius*)

Dormice are fully protected under UK and European legislation in England including the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010. Taken together, these legislative instruments make it illegal to:

- deliberately, capture, injure or kill them;
- to damage, destroy or obstruct their breeding or resting places;
- to disturb them in their breeding or resting places;
- possess or sell a wild dormouse.

(Natural England, 2016)

2.3.6 Birds

In the UK, the provisions of the Birds Directive are implemented through the Wildlife & Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2010. All wild birds, their nests and eggs are protected it an offence to:

- kill, injure, or take any wild bird;
- take, damage or destroy the nest of any such bird whilst it is in use or being built; or
- take or destroying an egg of any such wild bird.

(Natural England, 2016)

The law covers all species of wild birds including common, pest or opportunistic species. Special protection against disturbance during the breeding season is also afforded to those species listed on Schedule 1 of the Act.

2.3.7 Reptiles

Adders, slow worms, grass snakes and common lizards are protected against killing and injuring under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). This legislation makes it illegal to intentionally kill or injure a common reptile. As a result, reptiles must be removed from areas of development and relocated onto suitable release sites before any site works can commence.

Smooth snakes and sand lizards are also protected under schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2010 (as amended) making them European Protected Species. This makes it illegal to carry out the following activities:

- Deliberately or recklessly disturb, capture or kill these animals;
- Deliberately or recklessly take or destroy eggs of these animals;
- Damage or destroy a breeding site or resting place of such a wild animal; or
- Keep, transport, sell or exchange, or offer for sale or exchange, any live or dead animal, or any part of, or anything derived from such a wild animal.

(Natural England, 2016)

2.3.8 **Badgers (*Meles meles*)**

Badgers and their setts are fully protected under the Protection of Badgers Act 1992. This Act makes it an offence, *inter alia*, to:

- Wilfully kill, injure or take, or attempt to kill, injure or capture a badger; or
- Interfere with a badger sett by doing any of the following things, intending to do any of these things or be reckless as to whether one's actions would have any of these consequences:
 - Damage, destroy or obstruct access to a badger sett or any part of it.
 - Disturb a badger when it is occupying a badger sett.

Where planning permission has been granted, Natural England may issue a licence to interfere with setts for development purposes. However, licences are only usually issued for works between July and November, a period when badgers are unlikely to have dependent young below ground.

(Natural England, 2016)

3.0 Methodology

3.1 **Data Search**

Records of protected species and non-statutory wildlife sites within a 1km radius of the application site were requested from West Yorkshire Ecology.

Locations of statutory designated sites were accessed via the government 'MAGIC' website (www.magic.gov.uk).

3.2 **Extended Phase 1 Habitat Site Survey**

To fulfil the brief, an Extended Phase 1 Habitat Survey was conducted following the methodology of the Joint Nature Conservation Committee (JNCC) *Handbook for Phase I Habitat Survey - A Technique for Environmental Audit* (2010). Extended Phase I Habitat Survey

is a standard technique for obtaining baseline ecological information for large areas of land in which the main vegetation types present within the survey area are mapped using a standard set of habitat categories. The aim is to provide records of habitats that are of significant ecological value.

Additional Target Notes

Additional target notes were made where applicable to record:

- Key habitat features.
- Ecological features not covered in sufficient detail in the Phase 1 Methodology.
- Important habitats too small to be mapped and to identify dominant species.
- Other features of ecological interest.

3.3 Protected Fauna and Flora Species

Potential signs/suitable habitats for the presence of European and Domestic protected species were recorded.

3.4 Ecological Value and Impact Assessment

Guidelines for ecological value and impact assessment within Volume 11 Section 2 of the Design Manual for Roads and Bridges (DMRB) (Department for Transport, 2009) have been used to place the ecological value of the site in context and assess the likely impacts of the proposed development.

The DMRB is considered by the author to offer a more workable methodology than other assessment methods currently available and is applicable to development situations other than roads and bridges.

Criteria used to assign value and assess likely impacts are provided in Appendix II.

4.0 Results: Desktop Survey

4.1 Data search

Biological records data was searched for and requested over a 1km radius from West Yorkshire Ecology (see Appendix IV).

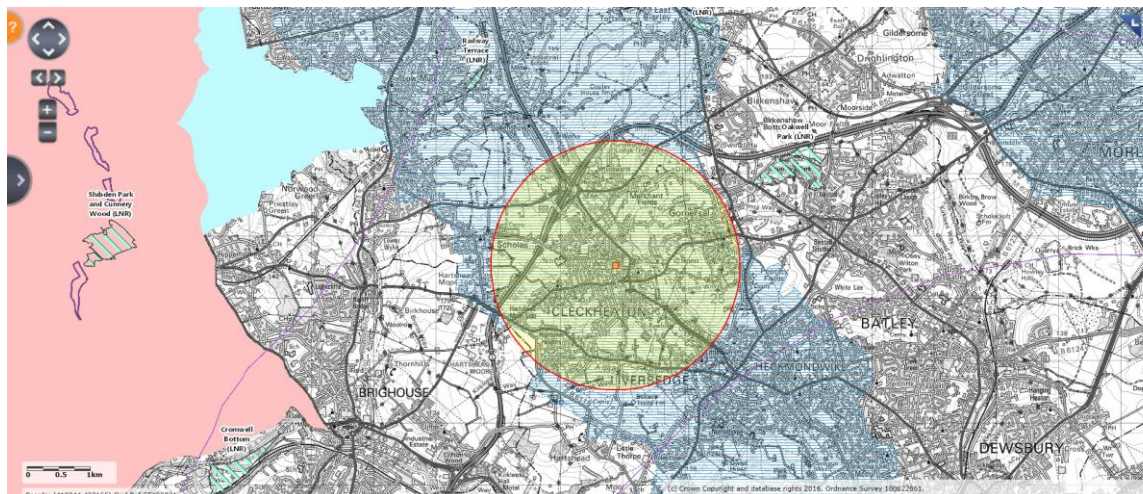
4.1.1 Summary of Protected Species Recorded within a 1km Radius

Species	Scientific Name	Grid Ref (SD)	Source	Date
Lesser Noctule	<i>Nyctalus leisleri</i>	7 records	WYE	2002 - 2010
Otter	<i>Lutra lutra</i>	1 record	WYE	2006
Noctule	<i>Nyctalus noctula</i>	3 records	WYE	2011 - 2014
Pipistrelle	<i>Pipistrellus sp.</i>	3 records	WYE	2007 - 2014
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>	24 records	WYE	2003 - 2014
Bat species	<i>Vespertilionidae</i>	12 records	WYE	1999 - 2009

Table 1: Summary of Protected Species Desktop Records

4.1.2 Statutory Designated Nature Conservation Sites

Designated site information drawn from the Multi Agency Geographic Information for the Countryside site www.magic.com confirmed designated sites within the 2km search radius.



No statutory designated sites were found within the 2km search radius.

In addition, from the information provided by West Yorkshire Ecology, the following Site of Nature Conservation Importance was identified:

1. Hanging Wood (SWS and LWS)
2. Hunsworth Little Wood (LWS)

5.0 Results : Field Survey - Plants and Habitats

5.1 Field Survey

The site was surveyed on Tuesday 16th February 2016 by Victoria Telford B.Sc (Hons) M.Sc GradCIEEM, Graduate Ecologist with Environmental Services. All habitats were recorded and described in terms of dominant and characteristic plant species using Phase 1 Habitat Survey methodology (JNCC, 2010). A fauna and flora species list was compiled (see Appendix III).

The site was searched for field signs of badgers such as runs, latrines and feeding signs and assessed in terms of its suitability for other notable or protected species including bats, otter, water vole, reptiles, amphibians, hazel dormouse and birds. In addition observations were made to identify any primary EBP and Local BAP species or habitats of local, regional and national importance.

Weather conditions during the survey were dry and bright with a slight breeze, ambient day time temperatures were approximately 5°C.

5.2 Plants and Habitats

Refer to Appendix I for Habitat Map and Appendix III for comprehensive species list and Target Notes.

The following habitats were recorded during the survey:

5.2.1 C3.1 Tall Ruderal

Tall ruderal plants have colonised the boundaries, loose rubble (as a result of demolition of the buildings previously occupying the site) and in some areas the concrete poured bases. These areas are dominated by *Buddleia* sp., with tree saplings of Ash (*Fraxinus excelsior*) and Sycamore (*Acer pseudoplatanus*) occasionally present, as well as Cocksfoot (*Dactylis glomerata*), Rosebay Willowherb (*Chamerion angustifolium*), Nettle (*Urtica dioica*), Bramble (*Rubus fruticosus* agg.) and Ragwort (*Senecio jacobaea*). This habitat appears to have established within the last three-five years and has low ecological value except for potential to support common invertebrates and nesting common garden birds only.

5.2.2 J2.4 Fence

The boundaries are dominated by hoarding constructed of ply board attached to wooden posts, and there is a small section of fencing consisting of wooden planks attached to wooden posts adjacent to properties along George Street. The fences have negligible ecological value.

5.2.3 J2.5 Wall

A few small sections of wall are present associated with the site boundaries, located in the North-east and North-west corners as well as adjacent to the housing along George Street. They are constructed from a mixture of red engineering brick and breeze block and have negligible ecological value.

5.2.4 J3.6 Building

There are three red engineering brick constructed facades with a roof (suspected asbestos) held up by metal framing and metal joists along the North-east boundary. Attached to the Southern elevation of this is a former residential building constructed of red engineering brick and breeze block with a pitched slate covered roof. The former residential building supports features suitable for roosting bats due to the presence of a gap in the soffit boxing on the Southern elevation and ingress/egress points noted under the slate tiles on the roof. This building has low ecological value with low potential to support roosting bats and the open building has low ecological value with potential to support nesting common garden birds.

5.2.5 J4 Hardstanding

The site is dominated by concrete poured slab and loose rubble resulting from the demolition of the buildings that previously occupied the site. The hardstanding is becoming colonised by tall ruderal species such as *Buddleia sp.* and has negligible ecological value.

5.2.6 Target Note 1

Location of dead canes with physical characteristics associated with Giant Hogweed (*Heracleum mantegazzianum*) and Japanese Knotweed (*Fallopia japonica*) present. Biological records indicate Giant Hogweed presence within 1km of the site.

5.2.7 Adjacent Habitat

The site is bordered to the North by Whitcliffe Road, to the West by Serpentine Road, and to the East by Northgate Road, residential properties and a school. Beyond this to the North, West and South the area is dominated by residential, industrial and retail built up areas. To the East beyond housing is greenspace consisting of fields, ponds and watercourses.

6.0 Results : Field Survey - Fauna

6.1 Bats

There are 49 desk based records of bats within 1km of site. The development site itself is considered to be of low value for foraging and of Low Bat Roost Potential (LBRP). The site is set within a built-up area with limited foraging and commuting opportunities as well as being dominated by hardstanding. The unoccupied residential building located on site supports several features with potential to support roosting bats including gaps under slate tiles and a

section of rotten soffit boxing. Further dedicated bat surveys will be required in line with current guidelines (Collins, 2016).

6.2 Water vole (*Arvicola amphibious*) and Otter (*Lutra lutra*)

There are no records of Water vole within 1km of the site and 1 record of Otter. There was no habitat on the site considered suitable to sustain the species and no evidence of their presence was observed. Given the habitats present, location of the site and the lack of present or historic evidence suggesting the use of the site by European Protected or Notable Species, it is the author's opinion that these species are highly unlikely to use this site and no further survey effort is recommended.

6.3 Great Crested Newt (*Triturus cristatus*)

There are no records of Great Crested Newts within the 1km search area. The site is generally considered to be of negligible value for the species and using OS mapping available online ('where's the path') ponds are located 0.4km East of the site beyond major barriers such as built-up areas and an A road, which would affect potential newt dispersal. Given the habitats present and location of the site, it is the author's opinion that this species is highly unlikely to use this site and no further survey effort is recommended.

6.4 Hazel Dormouse

There are no records of Hazel Dormouse within 1km of the site. The development area is considered to be of negligible suitability for dormice. Given the habitats present, location of the site and the lack of present or historic evidence suggesting the use of the site by European Protected or Notable Species, it is the author's opinion that this species is highly unlikely to use this site and no further survey effort is recommended.

6.5 Birds

No specially protected Schedule 1 birds or potential breeding habitat were recorded during the Phase 1 Habitat Survey and no further survey effort is recommended.

However, the site does contain tall ruderal plants and an open-fronted building supported by metal framework and joists that have a low suitability for nesting common garden birds. It is therefore recommended that vegetation removal/building demolition should be undertaken outside the bird breeding season (March to September inclusive). If works are to be undertaken within these timings then the area should first be inspected by a suitably qualified ecologist immediately prior to any works being undertaken. If nests are found to be present then these areas are to be left until the eggs have hatched and the young have fledged (Normally 4 – 6 weeks dependent on species). This will ensure that there is no major impact on breeding birds which may occupy any of these features.

6.6 Reptiles

From the desk based study no reptile records were noted within the 1km search radius. The development area is considered to be of negligible suitability for reptiles. Given the habitats present, location of the site and the lack of present or historic evidence suggesting the use of the site by European Protected or Notable Species, it is the author's opinion that these species are highly unlikely to use this site and no further survey effort is recommended.

6.7 Badger (*Meles meles*)

There are no records of Badger within a 1km search radius although two field records have been provided within a 2km radius; these records are associated with the outskirts of Cleckheaton beyond built up areas. No evidence of use of the site by badgers was recorded during the field survey. Given the habitats present, location of the site and the lack of present or historic evidence suggesting the use of the site by European Protected or Notable Species, it is the author's opinion that this species is highly unlikely to use this site and no further survey effort is recommended.

6.8 Other fauna

No other wildlife was recorded during the field survey.

6.9 Connectivity to statutory and non-statutory designated sites

Based on the location of the site and the habitats present, it is highly unlikely that the proposed development will pose any threat to connectivity between statutory and non-statutory sites in the region.

7.0 Ecological Value and Impact Assessment

The following section puts the value of the surveyed site into context and uses DMRB (DoT, 2008) criteria for assessing value and the potential magnitude of impact from the development proposals.

7.1 Ecological value

No EBP species were recorded during the Phase 1 Habitat Survey. Site habitats are species negligible in the wider ecological landscape in importance or rarity at local scale. The site being affected by the development therefore is considered low in its potential to support protected, EBP, Local BAP and red data species and sensitive development may improve the site from this perspective.

Using DMRB criteria (Appendix II) the site is considered of low ecological value.

7.2 **Impact Assessment**

The proposed development will have a minor magnitude of impact upon the site and its ecological features.

Therefore a minor impact upon a site of low value constitutes an ecological impact of neutral or slight magnitude.

Considering the size of the site and the nature of the habitats involved the proposed development is considered to pose a neutral or slight impact on local biodiversity, enhancement associated with landscaping and inclusion of bat and bird boxes should be included in the proposed development design.

8.0 Recommendations & Conclusion

The Phase One Habitat Survey was undertaken by an experienced ecologist and the following recommendations are made:-

- 8.1** Despite the site being within a built-up area with limited foraging opportunities, there are features with potential to support roosting bats present within the building such as gaps under slate tiles and rotten soffit boxing. There also appears to be a loft space requiring inspection. The building has been classed as Low Bat Roost Potential (LBRP). An internal inspection of the building followed by a single dusk emergence/dawn re-entry survey will be undertaken by suitably qualified ecologists and carried out in suitable weather conditions between the months of May and September (inclusive).
- 8.2** There is a stand of dead canes present with physical characteristics associated with the presence of two invasive plants; Giant Hogweed (*Heracleum mantegazzianum*) and Japanese Knotweed (*Fallopia japonica*). As the site visit was undertaken in February 2016, which is a sub-optimal time of year for plant identification, we would advise a specialist company is employed to allow full identification of these species during the optimal survey period across the site and produce a suitable remediation programme in line with your current commitments and time frames. In light of these two species being identified on site, Section 14(2) of the Wildlife and Countryside Act 1981 (WCA 1981) 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. Both Japanese Knotweed and Giant Hogweed are plants listed in the Schedule. Anyone convicted of an offence under Section 14 of the WCA 1981 may face a fine of £5,000 and/or 6 months imprisonment, or 2 years and/or an unlimited fine on indictment. In addition to this The Environmental Protection Act 1990 (EPA 1990) contains a number of legal provisions concerning controlled waste, which are set out in Part II. Any Japanese Knotweed or Giant Hogweed contaminated soil or plant material that you discard, intend to discard or are required to discard is likely to be classified as controlled waste. The most relevant provisions are in: section 33 (1a) and (1b) which create offences to do with the deposit, treating, keeping or disposing of controlled waste without a licence.
- 8.3** All vegetation removal and removal of the open-fronted building should ideally take place outside of the bird nesting season to avoid impacting on nesting birds. If this is not possible and vegetation removal works are scheduled for within the bird nesting season (March to September inclusive), and nests are found to be present, then these areas are to be left until the eggs have hatched and the young have fledged (Normally 4 – 6 weeks dependent on species). This will ensure that there is no major impact on breeding birds which may occupy any of these features.

- 8.4 Bat and bird boxes will be included within the new development design, and wild flower seed mix (suitably sourced for the area) and native trees and shrubs used to landscape areas surrounding the buildings. Assistance will be engaged from an ecologist in the design and location of bird/bat boxes.

No further survey effort is considered necessary unless changes are made to the development area to be affected over and above those indicated within this report.

9.0 References

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Websites for access to Full Legislation and Policy Text:

Birds Directive:

http://ec.europa.eu/environment/nature/legislation/birdsdirective/index_en.htm

Conservation of Habitats and Species Regulations 2010 (as amended):

<http://www.legislation.gov.uk/ukxi/2012/1927/contents/made>

Countryside and Rights of Way Act 2000:

<http://www.legislation.gov.uk/ukpga/2000/37/contents>

Habitats Directive:

http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm

National Planning Policy Framework:

<http://www.communities.gov.uk/documents/planningandbuilding/pdf/2116950.pdf>

Natural Environment and Rural Communities Act 2006:

<http://www.legislation.gov.uk/ukpga/2006/16/contents>

UK Post-2010 Biodiversity Framework:

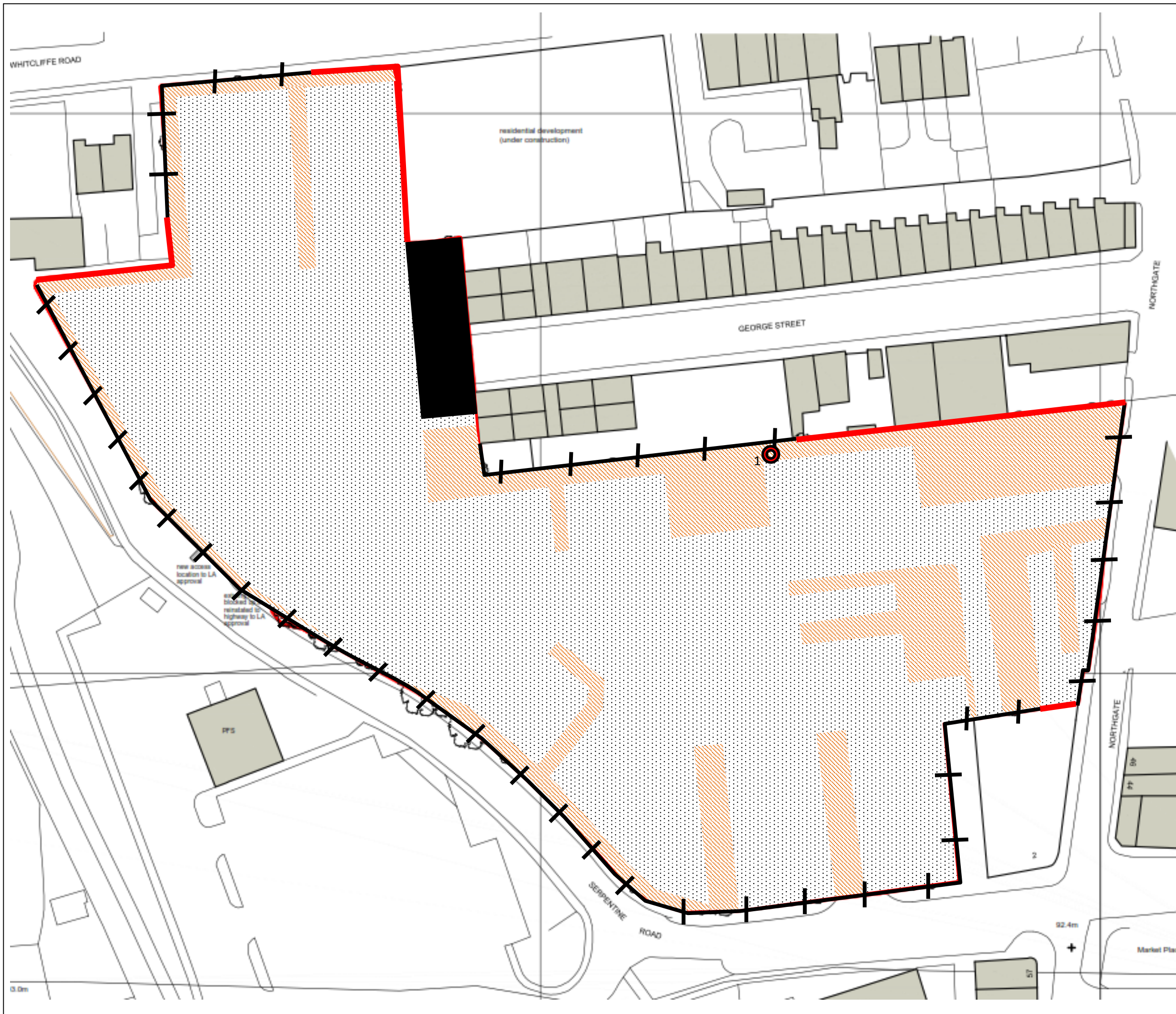
<http://jncc.defra.gov.uk/page-6189>.

Wildlife and Countryside Act 1981 (as amended):






<http://www.legislation.gov.uk/ukpga/1981/69>


Appendix I

Phase 1 Habitat Map



KEY

-  C3.1 Tall Ruderal
-  J2.4 Fence
-  J2.5 Wall
-  J3.6 Building
-  J4 Hardstanding

-  Target Note
(see Target Note table)

Phase 1 Habitat Plan
 Serpentine Road,
 Cleckheaton, West
 Yorkshire, BD19 3HU

Plan Ref
 EC0.12629.v1

Date
 17.02.2016



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Appendix II

DMRB Assessment Criteria

Table 1. Environmental Value (Sensitivity) and Typical Descriptors

Value (sensitivity)	Typical descriptors
Very High	<ul style="list-style-type: none"> Very high importance and rarity, international scale and very limited potential for substitution.
High	<ul style="list-style-type: none"> High importance and rarity, national scale, and limited potential for substitution.
Medium	<ul style="list-style-type: none"> High or medium importance and rarity, regional scale, limited potential for substitution.
Low (or Lower)	<ul style="list-style-type: none"> Low or medium importance and rarity, local scale.
Negligible	<ul style="list-style-type: none"> Very low importance and rarity, local scale.

Table 2. Magnitude of Impact and Typical Descriptors

Magnitude of impact	Typical criteria descriptors
Major	<ul style="list-style-type: none"> Loss of resource and/or quality and integrity of resource; severe damage to key characteristics, features or elements (Adverse).
	<ul style="list-style-type: none"> Large scale or major improvement of resource quality; extensive restoration or enhancement; major improvement of attribute quality (Beneficial).
Moderate	<ul style="list-style-type: none"> Loss of resource, but not adversely affecting the integrity; partial loss of/damage to key characteristics, features or elements (Adverse).
	<ul style="list-style-type: none"> Benefit to, or addition of, key characteristics, features or elements; improvement of attribute quality (Beneficial).
Minor	<ul style="list-style-type: none"> Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements (Adverse).
	<ul style="list-style-type: none"> Minor benefit to, or addition of, one (maybe more) key characteristics, features or elements; some beneficial impact on attribute or a reduced risk of negative impact occurring (Beneficial).
Negligible	<ul style="list-style-type: none"> Very minor loss or detrimental alteration to one or more characteristics, features or elements (Adverse).
	<ul style="list-style-type: none"> Very minor benefit to or positive addition of one or more characteristics, features or elements (Beneficial).
No change	<ul style="list-style-type: none"> No loss or alteration of characteristics, features or elements; no observable impact in either direction.

Table 3. Arriving at Significance of Effect Categories

		MAGNITUDE OF IMPACT (DEGREE OF CHANGE)				
		No change	Negligible	Minor	Moderate	Major
ENVIRONMENTAL VALUE (SENSITIVITY)	Very High	Neutral	Slight	Moderate or Large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or Moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Appendix III

Species List and Target Notes

Target Note	Common Name	Latin	Comment
Tall Ruderal	Dock Goat Willow Creeping Thistle Spear Thistle Ash Sycamore Cocksfoot Ivy Hogweed Ragwort Buttercup Perennial Rye Grass Buddleia Dandelion Rosebay Willowherb Nettle Bramble Red Fescue Cleavers Mahonia Ribwort Plantain Moosewood Mugwort	<i>Rumex obtusifolius</i> <i>Salix caprea</i> <i>Cirsium arvense</i> <i>Cirsium vulgare</i> <i>Fraxinus excelsior</i> <i>Acer pseudoplatanus</i> <i>Dactylis glomerata</i> <i>Hedera helix</i> <i>Heracleum sp.</i> <i>Senecio jacobaea</i> <i>Ranunculus repens</i> <i>Lolium perenne</i> <i>Buddleia sp.</i> <i>Taraxacum officinale</i> <i>Chamerion angustifolium</i> <i>Urtica dioica</i> <i>Rubus fruticosus agg.</i> <i>Festuca rubra</i> <i>Galium aparine</i> <i>Mahonia sp.</i> <i>Plantago lanceolata</i> <i>Acer pensylvanicum</i> <i>Artemisia vulgaris</i>	Colonising rubble, hardstanding and boundaries.
TN1	Location of suspected Giant Hogweed	<i>Recommendation for re-survey to assess site for invasive plants.</i>	
BIRDS	Wood Pigeon Magpie	<i>Columba palumbus</i> <i>Pica pica</i>	Seen on the site.

Appendix IV

Background Data Search

Site Check Report Report generated on Tue Feb 9 2016

You selected the location: Centroid Grid Ref: SE188255

The following features have been found in your search area:

Nitrate Vulnerable Zones (England)

Zone ID

271

Type of NVZ

Surface Water

Areas of Outstanding Natural Beauty (England)

No Features found

Limestone Pavement Orders (England)

No Features found

Local Nature Reserves (England) - points

No Features found

Local Nature Reserves (England)

No Features found

Moorland Line (England)

No Features found

National Nature Reserves (England) - points

No Features found

National Nature Reserves (England)

No Features found

National Parks (England)

No Features found

National Parks: Lake District and Yorkshire Dales Variation Orders 2012 - subject to confirmation (England)

No Features found

Ramsar Sites (England) - points

No Features found

Ramsar Sites (England)

No Features found

Sites of Special Scientific Interest Units (England) - points

No Features found

Sites of Special Scientific Interest Units (England)

No Features found

SSSI Impact Risk Zones – to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites (England)

No Features found

Special Areas of Conservation (England) - points

No Features found

Special Areas of Conservation (England)

No Features found

Special Protection Areas (England) - points

No Features found

Special Protection Areas (England)

No Features found

Biosphere Reserves (England) - points

No Features found

Biosphere Reserves (England)

No Features found

Less Favoured Areas (England)

No Features found

Species	Scientific Name	Grid Ref (SD)	Source	Date
Lesser Noctule	<i>Nyctalus leisleri</i>	SE177238	WYE	2006
		SE1781224929	WYE	2010
		SE1797025529	WYE	2007
		SE1797025529	WYE	2006
		SE1797025529	WYE	2007
		SE1799325575	WYE	2005
		SE1910126703	WYE	2002
Otter	<i>Lutra lutra</i>	SE19492543	WYE	2006
Noctule	<i>Nyctalus noctula</i>	SE1749524660	WYE	2014
		SE1755624457	WYE	2012
		SE1802725970	WYE	2011
Pipistrelle	<i>Pipistrellus sp.</i>	SE182254 x2	WYE	2014
		SE1914026842	WYE	2007
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>	24 records SE186 254 closest	WYE	2003 - 2014
Bat species	<i>Vespertilionidae</i>	12 records, closest SE18352567	WYE	1999 - 2009

Appendix V

Photographs



Plate 1: Harstanding (East section) with tall ruderal plants colonising.



Plate 2: North-west section of site, dominated by hardstanding.



Plate 3: Open fronted building supported by metal frame.



Plate 4: Former residential building with Low Bat Roost Potential.



Plate 5: Suspected Giant Hogweed and Japanese Knotweed– dead canes currently present (pen included for perspective).

Appendix VI

Ecology Survey Calendar

SURVEY ACTIVITY	MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
BACKGROUND DATA SEARCH													
DESK STUDY		Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
BOTANICAL – INITIAL SURVEYS													
EXTENDED PHASE 1 HABITAT SURVEY		Orange	Orange	Orange	Green	Green	Green	Green	Green	Green	Orange	Orange	Orange
BOTANICAL PHASE 2 SURVEYS													
NATIONAL VEGETATION CLASSIFICATION SURVEY – WOODLAND		Red	Red	Orange	Orange	Green	Green	Green	Green	Orange	Orange	Red	Red
NATIONAL VEGETATION CLASSIFICATION SURVEY – GRASSLAND		Red	Red	Orange	Orange	Green	Green	Green	Green	Orange	Orange	Red	Red
HEDGEROW SURVEY		Red	Red	Orange	Orange	Green	Green	Green	Green	Orange	Orange	Red	Red
RIVER CORRIDOR SURVEY		Red	Red	Red	Red	Orange	Orange	Green	Green	Orange	Orange	Red	Red
SPECIES - INITIAL SURVEYS													
INITIAL SPECIES WALKOVER SURVEY		Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
SPECIES PHASE 2 SURVEYS													
BADGER-SETT/ ACTIVITY SURVEY		Orange	Green	Green	Green	Orange	Orange	Orange	Orange	Green	Green	Green	Orange
BAT (BAT ROOST POTENTIAL BRP)		Orange	Orange	Orange	Orange	Green	Green	Green	Green	Orange	Orange	Orange	Orange
BAT DUSK EMERGENCE/ DAWN RE-ENTRY/ ACTIVITY SURVEYS		Red	Red	Red	Orange	Green	Green	Green	Green	Orange	Orange	Red	Red
BAT HIBERNATION SURVEYS		Green	Green	Orange	Red	Red	Red	Red	Red	Red	Red	Orange	Green
BIRDS (BREEDING)		Red	Orange	Green	Green	Green	Green	Green	Orange	Red	Red	Red	Red
BIRDS (WINTERING)		Green	Green	Green	Red	Red	Red	Red	Red	Red	Red	Green	Green
COMMON DOREMOUSE (NUT SEARCHES)		Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green
COMMON DOREMOUSE (NEST TUBE/ BOX SURVEYS)		Red	Red	Red	Orange	Green	Green	Green	Green	Green	Orange	Red	Red
GREAT CRESTED NEWT SURVEY		Red	Red	Green	Green	Green	Green	Red	Red	Red	Red	Red	Red
GREAT CRESTED NEWT (HABITAT SUITABILITY INDEX HSI)		Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
INVERTEBRATES (TERRESTRIAL)		Red	Red	Orange	Orange	Green	Green	Green	Green	Orange	Orange	Red	Red
INVERTEBRATES (AQUATIC)		Orange	Orange	Green	Green	Green	Orange	Orange	Orange	Green	Green	Orange	Orange
OTTER (FIELD SIGN SEARCHES)		Orange	Orange	Orange	Orange	Green	Green	Green	Green	Orange	Orange	Orange	Orange
REPTILE SURVEY AND TRANSLOCATION		Red	Red	Orange	Green	Green	Orange	Orange	Green	Orange	Orange	Red	Red
WHITE CLAWED CRAYFISH		Red	Red	Red	Red	Orange	Orange	Green	Green	Orange	Orange	Red	Red
WATER VOLE (FIELD SIGN SEARCHES)		Orange	Orange	Orange	Orange	Green	Green	Green	Green	Orange	Orange	Orange	Orange



OPTIMAL PERIOD FOR SURVEY WORK



SUB OPTIMAL PERIOD FOR SURVEY WORK



UNSUITABLE NO SURVEY

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MITIGATION ACTIVITY	MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
BACKGROUND DATA SEARCH													
HABITATS / VEGETATION TRANSLOCATION		Planting and Translocation	No Mitigation for the Majority of Species								Planting and Translocation		
BADGER SETT EXCLUSION (ONLY UNDER EPS LICENCE)		Construction of Artificial Setts only						Exclusion from Setts and Destructive Search					
BAT EXCLUSION / WORKS AFFECTING BAT ROOSTS (ONLY UNDER EPS LICENCE)		Works on Maternity and Summer Roosts	Works on Maternity and Hibernation Roosts	Works on Hibernation Roosts Only			Works on Maternity and Hibernation Roosts	Works on Maternity and Summer Roosts					
BREEDING BIRDS CLEARANCE WORKS		Clearance Works	Clearance Works should be Avoided (nesting season) but may be possible under Ecological Supervision						Clearance Works				
COMMON DOREMOUSE DISPLACEMENT (ONLY UNDER EPS LICENCE)		No Clearance Works as Hibernating	Small Scale Clearance Possible	Avoid Clearance Works (breeding season)			Clearance, Translocation and Release	No Clearance as Hibernating					
GREAT CRESTED NEWT TRANSLOCATION (ONLY UNDER EPS LICENCE)		No Trapping as Hibernating	Trapping and Translocation in Ponds and on Land			Trapping and Translocation on Land only			No Trapping as Hibernating				
INVERTEBRATES (TERRESTRIAL)		Due to the Large Diversity of Invertebrates and their Varied Habitats, the Timing of Mitigation Works depends on the Species and Nature of Works being Undertaken											
OTTER (FIELD SIGN SEARCHES) (ONLY UNDER EPS LICENCE)		Mitigation can Potentially be Conducted in any Month, but is Likely to be Restricted where Otters are Breeding											
REPTILE TRANSLOCATION		Scrub Clearance only	Capture/Translocation and Scrub Clearance				Scrub Clearance only	Capture/Translocation and Scrub Clearance	Scrub Clearance only				
WHITE CLAWED CRAYFISH (ONLY UNDER EPS LICENCE)		Avoid Disturbance (low activity)			Avoid Disturbance (breeding season)			Exclusion Works		Avoid Disturbance			
WATER VOLE DISPLACEMENT / TRANSLOCATION (ONLY UNDER LICENCE)		Avoid Works in Habitat	Trapping and Exclusion	Avoid Works (breeding season)			Trapping and Exclusion	Avoid works in Habitat					



OPTIMAL PERIOD FOR MITIGATION WORKS



SOME MITIGATION WORKS POSSIBLE



MITIGATION WORKS NOT POSSIBLE

N.B. MANY ECOLOGICAL SURVEYS ARE WEATHER DEPENDENT AND ADVERSE WEATHER COULD DELAY THE SURVEY EFFORT/ SURVEY / MITIGATION TIMINGS

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