

# Extended Phase 1 Habitat Survey

Mason Street, Liverpool

March 2017

# **Draft Report**

Report Prepared For:

Fairhurst,

Arngrove Court,

Barrack Road,

Newcastle upon Tyne,

NE4 6DB

Project Ref: ECN16 186

**Prepared By:** Maria Thompson Grad CIEEM

**Reviewed By:** Catherine Charles MCIEEM

**Approved By:** Claire Snowball MCIEEM

**Date:** 6<sup>th</sup> March 2017



### **Document Control**

Version	Date	Changes	Confidentiality	Prep	Rev	Auth
Draft V01	06/03/17	Draft to client	Not confidential	MT	CC	CS

#### Field Investigations and Data

Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work. Where any data supplied by the client or from other sources have been used it has been assumed that the information is correct. No responsibility can be accepted by EcoNorth Ltd. for inaccuracies in the data supplied by any other party.

#### **Declaration of Compliance**

"The information which we have prepared and provided is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed within this document are our true and professional bona fide opinions."

#### Copyright

The contents and layout of this report are subject to copyright owned by EcoNorth Ltd. (© EcoNorth Ltd. 2017).

#### Third Party Disclaimer

Any disclosure of this report to a third party is subject to this disclaimer. The report was prepared by EcoNorth Ltd. at the instruction of, and for use by, our client named on the front of the report. It does not in any way constitute advice to any third party who is able to access it by any means. No other warranty, expressed or implied is made as to the professional advice included in this report.

EcoNorth Ltd.
11 Enterprise Court
Cramlington
Northumberland
NE23 1LZ

E: enquiries@EcoNorth.co.uk

Tel: 01670 735547

Web: www econorth coluk





## Contents

Cc	nten	ts	1
1.	Sun	nmary	3
2.	Intr	oduction	4
2	2.1	Background	4
2	2.2	Site Context	5
4	2.3	Nature of the Proposals	5
3.	Plai	nning Policy and Legislation	6
ć	3.1	Planning Policy and Guidance	6
	3.2	Legislation	6
4.	Ме	thodology	7
4	4.1	Desk Study	7
4	4.2	Field Survey	8
4	4.3	Assessment	9
5.	Bas	eline Conditions	9
į	5.1	Desk Study	9
į	5.2	Field Survey	10
6.	Inte	erpretation and Discussion	12
(	5.1	Survey Constraints and Further Survey Requirements	12
(	5.2	Assessment of Value	12
(	5.3	Input into the Design Process	13
(	5.4	Impact Assessment	13
7.	Miti	igation and Compensation Strategy	13
8.	Ref	erences	14



Appendix A – Key Legislation	15
Appendix B – Phase 1 Habitat Map	20
Appendix C – Target Notes	21
Appendix D – Site Photographs	22
Appendix F – Value of Ecological Receptors	24



### 1. Summary

EcoNorth Ltd. was commissioned by Fairhurst to undertake an extended phase 1 survey of land at Mason Street in Liverpool, Merseyside. The survey was undertaken by Maria Thompson on 23<sup>rd</sup> February 2017. Habitat maps were produced in accordance with the methodology described in the Handbook for Phase 1 Habitat Survey (JNCC, 2010), with the survey 'extended' to determine the potential suitability of the site for protected species. It is proposed to redevelop the site; this report is designed to highlight key ecological constraints and assesses the potential impacts upon the ecological interests of the site, with a particular emphasis on the presence of non-native and invasive plant species listed on schedule 9 of the Wildlife and Countryside Act 1981 (as amended). **This is a draft report and is not currently suitable to support a planning application.** 

The following table highlights the key ecological features/species identified on site and those which have the potential to be present, based on the information available to date. Requirements for further surveys are highlighted, while necessary mitigation measures are provided in Section 7.

Ecological Feature	Presence on Site	Ecological Value	Further Surveys Required Pre- Planning?	Key Mitigation
Habitats	Habitats on site are dominated by hard standing, with limited areas of scrub, tall ruderal, semi-improved grassland, scattered trees and dense scrub	Negligible - local	No	None
Invasive Plant Species	None identified during site visit	N/A	No	None
Bats	No potential roost sites present and habitats provide limited foraging opportunities for the local bat population.	Negligible- low	No	Consider native planting scheme around periphery of development to provide potential foraging opportunities
Birds	Some potential for a limited range of locally common species of breeding bird to utilise the site	Low	No	Breeding bird check required if vegetation removal undertaken during breeding bird season (March – August inclusive)

Reptiles, badgers, great crested newts, otter and water vole were also considered, but are excluded from the above as habitats were not considered to be suitable.



### 2.1 Background

EcoNorth Ltd. was commissioned by Fairhurst to undertake an extended Phase 1 survey of land at Mason Street in Liverpool, Merseyside (central grid reference SJ 3634 9035). Fairhurst proposes to redevelop the site. The survey was designed to map the habitats and determine the potential suitability of the site for protected species, to highlight key ecological constraints with a particular emphasis on the presence of non-native and invasive plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

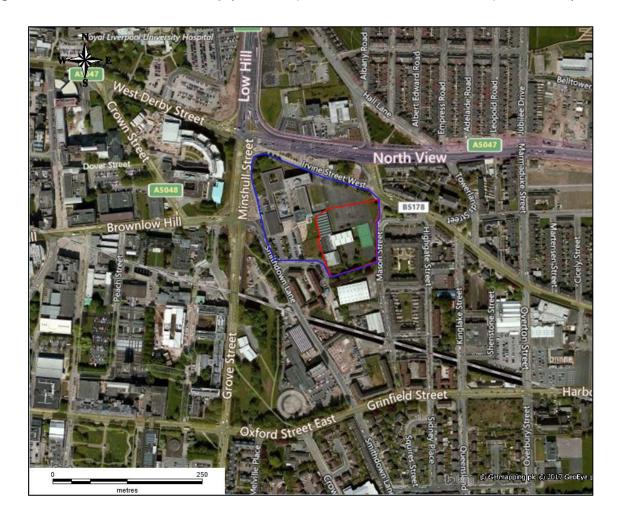
#### This report:

- Sets out the results of the survey
- Analyses the site's value for nature conservation
- Highlights the presence of any non-native or invasive species present on site
- Identifies additional survey requirements in order to fully determine the baseline ecological conditions on the site
- Identifies key avoidance, mitigation and/or compensation measures required to ensure the proposals do not have an adverse impact upon biodiversity

### 2.2 Site Context

Figure 1 identifies the location and extent of the development site.

Figure 1: Indicative Site Boundary (Boundary outlined in red, area surveyed in blue)



The site is located approximately 1km to the east of the City of Liverpool and 2.6km to the east of the River Mersey. The site lies in an area dominated by commercial development with interspersed residential development. The site previously housed a large school, which has recently been demolished.

### 2.3 Nature of the Proposals

It is proposed to redevelop the site following the demolition of a school. This report is designed highlight any ecological constraints associated with the proposals, particularly the presence of any non-native invasive plant species listed on Schedule 9 of the Wildlife and Countryside Act.



### 3.1 Planning Policy and Guidance

A series of national and local planning policies are in place which are designed to ensure that development works do not have an adverse impact upon biodiversity, at a site or wider level. Such policies ensure that both developers and public bodies must give due consideration to the potential effects of development works upon both ecological receptors (in line with existing wildlife legislation) and biodiversity.

### 3.1.1 National Planning Policy Framework (NPPF) (2012)

The NPPF outlines the Government's policies through the planning process, acting as guidance for local planning authorities and decision-makers. The document places a duty on local authorities to consider the principles included when assessing planning applications and preparing Local Plans and Regional Spatial Strategies. Chapter 11 relates to the conservation and enhancement of the natural environment, in line with existing wildlife legislation. Further details are provided on the gov.uk website (https://www.gov.uk/government/publications/national-planning-policy-framework--2)

### 3.1.2 Biodiversity Action Plans (BAPs)

The UK BAP was published in 1994 to guide national strategies for the conservation of biodiversity. BAPs were designed to ensure the conservation and re-establishment of natural habitats, and that measures were implemented to aid the conservation and enhancement of habitats and species of local importance, the latter through the development of Local BAPs. The UK BAP was succeeded by the 'UK Post-2010 Biodiversity Framework' in 2012 however, the lists of species and habitats of conservation importance are still considered to remain a valuable tool for identifying features of local and national conservation concern. As such, the potential presence of both Local and UK BAP habitats and species were considered throughout the surveys and assessment.

### 3.2 Legislation

A range of legislation is in place to ensure that habitats and species of conservation importance are protected from both direct and indirect harm. Key legislation includes:

- The Conservation of Habitats and Species Regulations 2010 (The Habitat Regulations)
- The Convention on the Conservation of European Wildlife and Natural Habitats 1979 (The Bern Convention)
- The Wildlife and Countryside Act 1981 (as amended)

- - The Natural Environment and Rural Communities (NERC) Act 2006
  - The Countryside and Rights of Way (CRoW) Act 2000
  - The Wild Mammals (Protection) Act 1996
  - The Protection of Badgers Act 1992
  - The Hedgerow Regulations 1997

An overview of the above legislation is provided in Appendix A.

The potential presence, on or near the site, of species afforded protection under the above legislation was considered throughout the surveys and assessment. Species considered include:

- Bats
- Great crested newt
- Otter
- Water Vole
- Reptiles
- Badger
- Birds

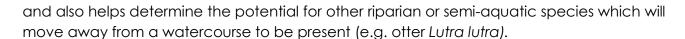
An overview of the legislation and level of protection relating to such species is provided in Appendix A.

### 4. Methodology

### 4.1 Desk Study

Contextual information was gathered as part of a desk study undertaken prior to the start of field surveys. Such information can identify protected or notable species which may occur on the proposed development site or in the local area, as well as identifying statutory and non-statutory ecological sites which may have the potential to be affected by the proposals. The location of statutory and non-statutory nature conservation sites within 2km of the survey site were obtained from the Multi-Agency Geographic Information for the Countryside (MAGIC) website (<a href="www.magic.gov.uk">www.magic.gov.uk</a>).

Additionally, 1:10,000 Ordnance Survey maps were consulted to help identify waterbodies or watercourses within 500m of the site. This search reflects the potential for great crested newts *Triturus cristatus* to utilise terrestrial habitat up to 500m from their breeding ponds



It should be noted that an absence of records is likely to reflect an absence of survey data and cannot be taken as confirmation that a particular species is not present in the site or surrounding area.

### 4.2 Field Survey

#### 4.2.1 Habitats

Mapping of the habitats within the site followed the Phase 1 survey methodology outlined in the 2010 edition of the 'Handbook for Phase 1 habitat survey' by the Joint Nature Conservation Committee (JNCC). This follows a standardised system which can be easily interpreted, with habitats and boundary features correlating to one of around ninety set definitions. Target notes were used to record further information regarding features of interest, or specific habitats or features identified during the survey which do not closely match any of the Phase 1 criteria.

Plant species were identified in accordance with Rose (2006) and Stace (2010). A search was conducted for presence of Schedule 9 invasive non-native plant species such as Japanese knotweed Fallopia japonica and Himalayan balsam Impatiens glandulifera.

The results of the Phase 1 survey are shown in Appendix B, with target notes provided in Appendix C and site photographs in Appendix D.

### 4.2.2 Protected and Notable Species

Throughout the field survey, searches were made for field signs indicating the presence of protected and notable species, including but not being limited to those species listed in Section 3.2. Any field signs recorded (including sightings of the animals themselves) were mapped; any such signs are illustrated in Appendix B and listed as target notes in Appendix C. An assessment was also made of the potential for the site and adjacent areas to support protected and notable species, to identify where the proposals may impact upon such species and identify any requirements for further (species-specific) surveys.

#### 4.2.3 Survey Conditions and Personnel

The extended phase 1 survey was completed on 22<sup>nd</sup> February 2017 by Maria Thompson. Details of qualifications and experience are available at <a href="https://www.econorth.co.uk/team">www.econorth.co.uk/team</a>

Table 1 shows the conditions during the survey.

**Table 1: Survey Conditions** 

Date	Precipitation	Temperature (°C)	Cloud Cover (Octas)	Wind (Beaufort Scale)
22/02/2017	Light intermittent rain throughout survey	10°C	8/8	4

Any constraints or limitations to the survey are discussed in Section 6.1.

### 4.3 Assessment

The botanical value of the habitats on site and the value of the site for protected species, as determined through the extended phase 1 survey, were based on the criteria published by the Chartered the Institute of Ecology and Environmental Management (CIEEM) in 2016 (<a href="http://www.cieem.net/ecia-guidelines-terrestrial-">http://www.cieem.net/ecia-guidelines-terrestrial-</a>). Each feature was classified as being as one of the following levels of value:

- International
- National
- Regional/County
- City/District/Borough
- Local
- Low

Examples of different ecological features meeting each of these criteria are outlined in Appendix E.

### 5. Baseline Conditions

### 5.1 Desk Study

### 5.1.1 Designated Sites

No statutory or non-statutory sites were identified within 2km of the development site.



### 5.2 Field Survey

#### 5.2.1 Habitats

Habitats within the site were found to be dominated by hard standing, with semi-improved grassland, dense scrub, tall ruderal and scattered trees. One structure was present on site. Such habitats are described in the following sub-sections. The results of the Phase 1 survey are shown in Appendix B, with target notes provided in Appendix C and site photographs in Appendix D.

### Habitat Name/Phase 1 Criteria Hard Standing/Built Development

Hard standing dominates the site, owing to its previous use as a car park and school yard. Small areas of rubble are present along the periphery of the site where the previous school building has been demolished. A single structure is present within the development area, comprising a single brick tower which appears to be in a sound condition.

#### Semi-improved Grassland/Tall Ruderal

The site is bordered by a semi-improved grassland margin featuring perennial rye-grass Lolium perenne, cock's foot Dactylis glomerata, white clover Trifolium repens, dandelion Taraxacum offinale agg., creeping buttercup Ranunculus repens, broadleaved dock Rumex obtusifolius, ribwort plantain Plantago lanceolata, common sorrel Rumex acetosa, ragwort Senecio jacobaea, spear thistle Cirsium vulgare, creeping thistle Cirsium arvense, weld Reseda luteola, pineappleweed Matricaria discoidea, self-heal Prunella vulgaris and herb Robert Geranium robertianum, with instances of hogweed Heracleum sphondylium, common nettle Urtica dioica, common horsetail Equisetum arvense and cleavers Galium aparine. The semi-improved grassland margins are interspersed with tall ruderal vegetation including rosebay willowherb Chamerion angustifolium and buddleia Buddleja davidii.

#### **Dense Scrub**

Dense scrub is dominant in the south and west of the site, comprising bramble *Rubus* fruticosus agg, with instances of rosebay willowherb and buddleia.

#### **Scattered Trees**

Scattered trees are present along the periphery of the site. The trees range from immature saplings through to semi-mature in age. Species noted include silver birch Betula pendula, sycamore Acer pseudoplatanus, grey willow Salix cinerea, alder Alnus glutinosa, dogwood Cornus sanguinea and hazel Corylus avellana.

### 5.2.2 Schedule 9 Plant Species

No schedule 9 plant species were identified on or within close proximity to the site.



### 5.2.3 Protected and Notable Species

#### Bats

Habitats on site are considered to be of varied quality for bats. The grassy margins with scattered trees are considered to provide some potential foraging habitat, with corridor features suitable for commuting. However, the majority of the site is hard standing and thus offers limited foraging and commuting opportunities owing to its open and exposed nature.

The trees on site are considered too immature and sound to support roosting bats. The single structure present on site - a brick tower - is well sealed with no potential access points. The mortar and bricks are all in a good condition with no signs of wear. As a result, the structure is not considered to have the potential to support roosting bats.

#### **Great Crested Newts**

Habitats on the site are considered to be unsuitable for such species due to the lack of potential breeding habitat (no ponds identified within 500m) and the dominance of hard standing, lacking potential foraging opportunities or shelter (from the weather or predators). As a result, great crested newt are not considered any further within this assessment.

#### Otter

No waterbodies or watercourses are present on or immediately adjacent to the site which could be used by otter, and the habitats within the survey area were considered to be unsuitable for the species, lacking either foraging opportunities or shelter. As such, otter are not considered further in this assessment.

#### Water Vole

The lack of aquatic habitat on or adjacent to the site, and the dominance of hard standing and built development within the proposed works area, are considered to preclude the use of the site by water vole. As such, the species is not considered further in this assessment.

### **Reptiles**

Although the areas of hard standing within the site have the potential to be used by basking reptiles, the lack of cover or potential foraging opportunities for such species within the site, and the severance of the site from potentially suitable habitat in the wider area, makes it highly unlikely that such species would be present or affected by the proposals. As such, reptiles are not considered further in this assessment.



#### **Badger**

The dominance of hard standing across the site is considered to provide unsuitable habitat for foraging badger or sett creation. Whilst areas of dense scrub may provide suitable badger habitat, the perimeter fence restricts access to the site for the species, with no mammal trails identified crossing this feature. As such, the species is not considered further in this assessment.

#### **Birds**

The scattered trees and limited areas of scrub on site have the potential to support small numbers of locally common species of breeding bird during the nesting period, with a single robin and c.5 goldfinches observed within the southern area of the site during the survey.

#### **BAP** and Other Species

The vegetated areas on site are considered suitable to support hedgehog, which may frequent the site from time to time.

### 6. Interpretation and Discussion

### 6.1 Survey Constraints and Further Survey Requirements

Due to the timing of the survey (winter) a full plant list could not be compiled. This limited the opportunity to find and identify species however, a good range of plants species were identifiable and given the nature and use of the site, it is considered that a robust assessment of the phase 1 habitat category and hence, conservation value of the site, could be made.

#### 6.2 Assessment of Value

Based on the results of the desk study and field work completed to date, the ecological interests of the site are valued as shown in Table 2, below, using the criteria outlined in Section 4.3 and Appendix E.

Table 2: Value of Ecological Features Recorded on Site

Ecological Feature	Ecological Value	Justification
Hard standing and structure (botanical)	Negligible	No botanical value
Scrub, tall ruderal, semi-improved grassland,	Low to local	Small areas supporting semi-improved grassland, scrub, tall ruderal, dense scrub and scattered trees with a range of locally common species, which can be readily recreated

Ecological Feature	Ecological Value	Justification
scattered trees and dense scrub		over a short period of time.
Bats	Negligible – low	Sub-optimal habitat for foraging and commuting with the exception of the vegetated periphery. Negligible roosting potential across site.
		Wider area is of negligible-low value to bats (built up infrastructure).
Birds	Low	Some potential for a limited range of locally common species of breeding birds to utilise the site

### 6.3 Input into the Design Process

Due to the nature of the habitats on site and the lack of suitable bat roosting habitat, no key ecological constraints to the proposals were identified which would require specific measures to be incorporated into the site design.

### 6.4 Impact Assessment

Based on the information available to date, the development will have the following impacts upon the ecological interests of the site:

- The loss of habitats of negligible to local value (largely the former), primarily comprising areas of hard standing
- The loss of a small area of habitat of low value to foraging and commuting bats
- The loss of a small area of habitat of low value to breeding birds
- The harm or disturbance of active nests, in the event that site clearance works are undertaken during the breeding season (March August inclusive)

### 7. Mitigation and Compensation Strategy

The following measures will be implemented in order to minimise the ecological impacts of the proposals, including the risk of protected species being adversely affected:

- Works (vegetation clearance) will not commence during the bird breeding season (March to August inclusive) unless a checking survey by an appropriately qualified ecologist has shown active nests to be absent within the five days prior to the start of works
- Priority within the planting scheme should be given to native species, ideally of local providence, or those of known value to wildlife, in order to help maximise the ecological value of the site



- Anon (2012). National Planning Policy Framework. Department for Communities and Local Government.
- England Field Unit Nature Conservancy Council 1990 (2010). Handbook for Phase 1 Habitat Survey a technique for environmental audit. Joint Nature Conservation Committee, Peterborough.
- Rose, F. (1989). Colour Identification Guide to the Grasses, Sedges, Rushes and Ferns of the British Isles and north-western Europe. Viking.
- Rose, F. (revised and updated by O'Reilly, C.) (2006). The Wild Flower Key: How to identify wild flowers, trees and shrubs in Britain and Ireland. Frederick Warne.
- Stace, C (2010). New Flora of the British Isles, 3rd Edition. Cambridge University Press.



Table A1: Overview of Key Legislation

The Conservation of Habitats and Species Regulations 2010 (The Habitats and Species) Regulations 2010 (The Habitats Regulations)  The Habitats Regulations 2010 (The Habitats Regulations)  The Habitats Regulations)  The Habitats Regulations 2010 (The Habitats Regulations)  The Habitats Regulations)  The Habitats Regulations 2010 (The Habitats Directive 972/43/EEC on the Conservation of Natural Habitats and of Natural Habitats and of Natural Habitats and of Natural Habitats and species Islated in Schedule 2.  The Habitat Regulations make it an offence (with certain exceptions) to deliberately capture, disturb, kill or trade in those animal species listed in Schedule 2, or to pick, cut, uproot, collect, destroy or trade in those plant species listed in Schedule 4.  The EC Birds Directive requires member states to establish and monitor Special Protection Areas (SPAs) for all rare or vulnerable species included in Annex I, as well as for all regularly occurring migratory species, with key focus on wetlands of international importance. Annex I and II of the Habitats Directive respectively list those habitats and species for which a similar network of sites – Special Areas of Conservation (SACs) – must be established and monitored. Collectively, SPAs and SACs form a network of panturopean protected areas which are referred to as 'Natura 2000' sites.  The Convention on the Conservation and protection of all wild plant and animal species and their natural habitats (listed in Appendices I and II), to ensure the conservation and protection of all wild plant and animal species and their natural habitats (listed in Appendices I and II), to increase cooperation between contracting parties, and to afford species and their natural habitats (listed in Appendices I and II), to increase cooperation between contracting parties, and to afford species and their natural habitats Directive. These are transposed into UK law by the Wildlife and Countryside Act 1981 (as amended), Nature Conservation (Scotland) Act 2004 (as amended), Wild		
of Habitats and Species Regulations 2010 (The Habitats Birds Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna (the EC Habitats Directive 1992) into UK law. The Birds Directive was amended in 2009, becoming Directive 2009/147/EC.  The Habitat Regulations make it an offence (with certain exceptions) to deliberately capture, disturb, kill or trade in those animal species listed in Schedule 2, or to pick, cut, uproot, collect, destroy or trade in those plant species listed in Schedule 4.  The EC Birds Directive requires member states to establish and monitor Special Protection Areas (SPAs) for all rare or vulnerable species included in Annex I, as well as for all regularly occurring migratory species, with key focus on wetlands of international importance. Annex I and II of the Habitats Directive respectively list those habitats and species for which a similar network of sites - Special Areas of Conservation (SACs) – must be established and monitored. Collectively, SPAs and SACs form a network of pan-European protected areas which are referred to as 'Natura 2000' sites.  The Convention on the Convention on the Convention of European Bernatural Habitats 1979  (Bern Convention)  The Bern Convention was adopted in 1979 and ratified by the UK Government in 1982. The principal aims of the Convention are to ensure the conservation and protection of all wild plant and animal species and their natural habitats (listed in Appendices I and II), to increase cooperation between contracting parties, and to afford special protection to the most vulnerable or threatened species (including migratory species).  Members of the European Community meet their obligations via the Birds Directive and the Habitats Directive. These are transposed into UK law by the Wildlife and Countryside Act 1981 (as amended), Nature Conservation (Scotland) Act 2004 (as amended), Wildlife (Northern Ireland) Order 1985.  The Wildlife and	Legislation	Key Features
to deliberately capture, disturb, kill or trade in those animal species listed in Schedule 2, or to pick, cut, uproot, collect, destroy or trade in those plant species listed in Schedule 4.  The EC Birds Directive requires member states to establish and monitor Special Protection Areas (SPAs) for all rare or vulnerable species included in Annex I, as well as for all regularly occurring migratory species, with key focus on wetlands of international importance. Annex I and II of the Habitats Directive respectively list those habitats and species for which a similar network of sites – Special Areas of Conservation (SACs) – must be established and monitored. Collectively, SPAs and SACs form a network of pan-European protected areas which are referred to as 'Natura 2000' sites.  The Convention on the Conservation of European Mildlife and Habitats 1979  (Bern Convention)  The Bern Convention was adopted in 1979 and ratified by the UK Government in 1982. The principal aims of the Convention are to ensure the conservation and protection of all wild plant and animal species and their natural habitats (listed in Appendices I and II), to increase cooperation between contracting parties, and to afford special protection to the most vulnerable or threatened species (including migratory species).  Members of the European Community meet their obligations via the Birds Directive and the Habitats Directive. These are transposed into UK law by the Wildlife and Countryside Act 1981 (as amended), Nature Conservation (Scotland) Act 2004 (as amended), Wildlife (Northern Ireland) Order 1985, and the Nature Conservation and Amenity Lands (Northern Ireland) Order 1985.	of Habitats and Species Regulations 2010 (The Habitats	the Protection of Wild Birds (the EC Birds Directive 1979) and Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna (the EC Habitats Directive 1992) into UK law. The Birds Directive was amended in 2009, becoming Directive
monitor Special Protection Areas (SPAs) for all rare or vulnerable species included in Annex I, as well as for all regularly occurring migratory species, with key focus on wetlands of international importance. Annex I and II of the Habitats Directive respectively list those habitats and species for which a similar network of sites – Special Areas of Conservation (SACs) – must be established and monitored. Collectively, SPAs and SACs form a network of pan-European protected areas which are referred to as 'Natura 2000' sites.  The Convention on the Conservation of European Wildlife and Natural Habitats 1979 (Bern Convention)  The Bern Convention was adopted in 1979 and ratified by the UK Government in 1982. The principal aims of the Convention are to ensure the conservation and protection of all wild plant and animal species and their natural habitats (listed in Appendices I and II), to increase cooperation between contracting parties, and to afford special protection to the most vulnerable or threatened species (including migratory species).  Members of the European Community meet their obligations via the Birds Directive and the Habitats Directive. These are transposed into UK law by the Wildlife and Countryside Act 1981 (as amended), Nature Conservation (Scotland) Act 2004 (as amended), Wildlife (Northern Ireland) Order 1985, and the Nature Conservation and Amenity Lands (Northern Ireland) Order 1985.		to deliberately capture, disturb, kill or trade in those animal species listed in Schedule 2, or to pick, cut, uproot, collect, destroy or trade in
the Conservation of European Wildlife and Natural Habitats 1979  (Bern Convention)  Members of the European Community meet their obligations via the Birds Directive and the Habitats Directive. These are transposed into UK law by the Wildlife and Countryside Act 1981 (as amended), Nature Conservation (Scotland) Act 2004 (as amended), Wildlife (Northern Ireland) Order 1985.  The Wildlife and  The Wildlife and Countryside Act consolidates and amends existing		monitor Special Protection Areas (SPAs) for all rare or vulnerable species included in Annex I, as well as for all regularly occurring migratory species, with key focus on wetlands of international importance. Annex I and II of the Habitats Directive respectively list those habitats and species for which a similar network of sites – Special Areas of Conservation (SACs) – must be established and monitored. Collectively, SPAs and SACs form a network of pan-European protected areas which are referred to as 'Natura 2000'
Birds Directive and the Habitats Directive. These are transposed into UK law by the Wildlife and Countryside Act 1981 (as amended), Nature Conservation (Scotland) Act 2004 (as amended), Wildlife (Northern Ireland) Order 1985, and the Nature Conservation and Amenity Lands (Northern Ireland) Order 1985.  The Wildlife and Countryside Act consolidates and amends existing	the Conservation of European Wildlife and Natural Habitats 1979	Government in 1982. The principal aims of the Convention are to ensure the conservation and protection of all wild plant and animal species and their natural habitats (listed in Appendices I and II), to increase cooperation between contracting parties, and to afford special protection to the most vulnerable or threatened species
,		Birds Directive and the Habitats Directive. These are transposed into UK law by the Wildlife and Countryside Act 1981 (as amended), Nature Conservation (Scotland) Act 2004 (as amended), Wildlife (Northern Ireland) Order 1985, and the Nature Conservation and
TOURINGIAE ACT TOURINGAL REGISTATION TO IMPLEMENT THE REQUIREMENTS OF THE KEYN	The Wildlife and Countryside Act	The Wildlife and Countryside Act consolidates and amends existing national legislation to implement the requirements of the Bern

Legislation	Key Features
1981 (as amended)	Convention and the Birds Directive throughout Great Britain. The Act is the primary UK mechanism for the designation of statutory ecological sites - Sites of Special Scientific Interest (SSSIs) - and the protection of individual species listed under Schedules 1, 2, 5, 6 and 8 of the Act, each of which is subject to varying levels of protection.
	<b>Schedule 9</b> of the Act also lists those plant species which it is an offence to plant or otherwise cause to grow in the wild, while Schedule 14 prevents the release into the wild or sale of certain plant and animal species which may cause ecological, environmental or socio-economic harm.
Natural Environment and Rural Communities Act 2006	The NERC Act places a duty on public bodies to consider and conserve biodiversity through the exercise of their functions and includes a range of measures to strengthen the protection of both habitats and wildlife. The Act makes provision in respect of biodiversity, pesticides harmful to wildlife, protection of birds and invasive non-native species.
The Countryside and Rights of Way (CRoW) Act 2000	The CRoW Act, which applies to England and Wales only, strengthens the provisions of the Wildlife and Countryside Act 1981 (as amended), both in respect of protected species and statutory ecological sites, the latter primarily relating to the management and protection of SSSIs. It also provides for better management of Areas of Outstanding Natural Beauty (AONBs).
	The Act places a statutory obligation on public bodies to further the conservation of biodiversity through the exercise of their functions, thereby providing a statutory basis to the Biodiversity Action Plan (BAP) process. Section 74 of the Act lists those habitats and species of principal importance in England.
The Wild Mammals (Protection) Act 1996	This Act provides protection for wild mammals from acts of cruelty. An offence is committed if any person mutilates, kicks, beats, nails, or otherwise impales, stabs, burns, stones, crushes, drowns, drags or asphyxiates any wild mammal with intent to inflict unnecessary suffering.
The Protection of Badgers Act 1992	This consolidates the existing legislation relating to the protection of badgers, and makes it an office in England and Wales to wilfully kill, injure or take a badger (or attempt to do so) and affords protection to both the animals themselves and their setts.
Hedgerow Regulations 1997	The Hedgerow Regulations are intended to protect important countryside hedgerows from destruction or damage in England and

Legislation	Key Features
	Wales.

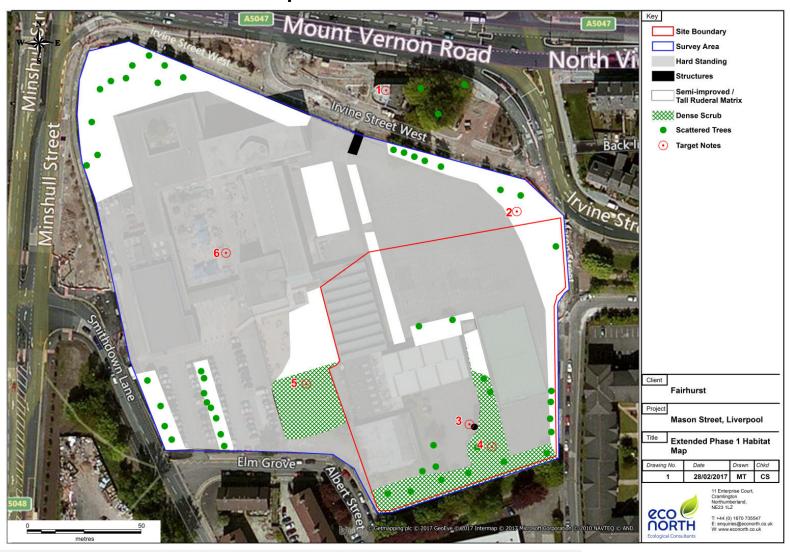
Table A2: Overview of Key Protected Species Legislation and Protection

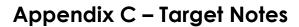
Species	Key Legislation and Protection
Bats	All European bat species are protected in Britain under the Habitat Regulations 2010. All British bat species are included on Schedules 5 and 6 of the Wildlife and Countryside Act 1981 (as amended) and the whole of Section 9 applies to European bat species. The above collectively prohibits the following:  • Deliberately or recklessly capturing, injuring, taking or killing of a bat  • Deliberately or recklessly harassing a bat  • Intentionally or recklessly disturbing of a bat in its place of rest (roost), or which is used for protection or rearing young  • Deliberately or recklessly damaging, destroying or obstructing access to any resting place or breeding area used by bats  • Deliberately or recklessly disturbing a bat in any way which is likely to significantly affect the local populations of the species, either through affecting their distribution or abundance, or affect any individuals' ability to survive, reproduce or rear young  • Possession or advertisement/sale/exchange of a bat (dead or alive) or any part of a bat  Bats are also protected by the Wild Mammals (Protection) Act 1996. Licenses are issued by Natural England for any works which may compromise the protection of European protected species, including bats. This license is required irrespective of whether the works require planning permission. Selected species are also listed in the UK BAP.
Great Crest Newt	<u> </u>
Otter	Otter are protected under British and European law, receiving the same level of protection as bats (see above). Otter are also listed as a priority species in Appendix II of the Bern Convention. Otter are included on the UK BAP.
Reptiles	Common reptiles (grass snake, adder, common lizard and slowworm) receive partial protection under the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to:  Intentionally or recklessly kill or injure these species  Sell, offer or advertise for sale, possess or transport for the

Species	Key Legislation and Protection
	purposes of sale these animals, whether alive or dead, or any part thereof
	In addition, smooth snake and sand lizard are also protected under the Habitat Regulations 2010, which makes it an offence to:
	<ul> <li>Intentionally or recklessly kill, injure, capture, disturb or handle these species;</li> </ul>
	<ul> <li>Intentionally or recklessly damage or destroy any place used by these species for shelter, protection, resting or breeding; and</li> </ul>
	<ul> <li>Intentionally or recklessly obstruct access to any place used for shelter, protection, resting or breeding by these species.</li> <li>All 6 species of native reptile are listed on the UK BAP.</li> </ul>
Water Vole	Water voles are protected under Schedules 5 and 6 of the WCA 1981 (as amended). This makes it an offence to:
	Intentionally kill, injure or take water voles
	Possess or control the species
	<ul> <li>Damage or destroy any place used by water vole for shelter or protection</li> </ul>
	<ul> <li>Disturb water vole while they occupy such places of shelter</li> </ul>
	<ul> <li>Sell, possess or transport water vole for the purpose of sale</li> </ul>
	<ul> <li>Advertise the buying or selling of water vole</li> </ul>
	The species is also protected under the Wild Mammals (Protection) Act 1996 and is listed on the UK BAP.
Badger	Badger are protected under the Protection of Badgers Act 1992, which makes it an offence to:
	Knowingly kill, capture, injure or disturb any individual
	<ul> <li>Intentionally damage or destroy a badger sett, or any part thereof</li> </ul>
	<ul> <li>Obstruct access to an area which is used for breeding, resting or shelter</li> </ul>
	<ul> <li>Disturb a badger while it is using any place used for breeding, resting or shelter</li> </ul>
	The species is also protected by the Wild Mammals (Protection) Act 1996 and receives partial protection through inclusion on Schedule 6 of the Wildlife and Countryside Act 1981 (as amended).
Birds	With the exception of some species listed on Schedule 2, the majority of bird species are protected under the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to intentionally or recklessly:
	Kill, injure or take any wild bird
	Take, damage or destroy any nest which is in use or being built

Species	Key Legislation and Protection
	<ul> <li>Take, damage or destroy the eggs of any such bird</li> </ul>
	Additional protection against disturbance at the nest is also afforded to any bird species listed on Schedule 1 of the Act. Selected bird species are also listed on the UK BAP.

## Appendix B – Phase 1 Habitat Map





### Table C1: Target Notes Relating to Figure (see Appendix B)

Number	Description
1	Large derelict pubic house to the north of the survey area (outside of the proposed development area)
2	Semi-improved grassland interspersed with tall ruderal such as rosebay willowherb and buddleia.
3	Tower structure located in the south of the site. Structure considered sound with no suitable roosting opportunities for bats present.
4	Area of dense scrub comprising bramble and rosebay willowherb. A single robin and c.5 goldfinches observed here during survey.
5	Area of dense scrub and young saplings.
6	Large area of hard standing with rubble where previous building has been demolished.



<b>Photo 1</b> : Hard standing, semi-improved grassland and rubble to the west of the site	<b>Photo 2</b> : Hardstanding; looking to the south of the site
Photo 3: Immature trees along periphery of site	<b>Photo 4</b> : Dense scrub, immature trees and tower structure in the south of the site



Photo 5: Hardstanding, dense scrub and scattered trees

Photo 6: Semi-improved grassland with tall ruderal

# Appendix E – Value of Ecological Receptors

### Table E1: Examples of Ecological Receptors of Differing Value

Value	Examples
International	<ul> <li>An internationally designated site or candidate site (SPA, pSPA, SAC, cSAC, pSAC, Ramsar site) or an area which meets the designation criteria for such sites.</li> <li>Internationally significant and viable areas of a habitat type listed in Annexe 1 of the Habitats Directive, or smaller areas of such habitat, which are essential to maintain the viability of a larger whole.</li> <li>Any regularly occurring, globally threatened species.</li> <li>A regularly occurring population of an internationally important species, which is threatened or rare in the UK, of uncertain conservation status</li> <li>A regularly occurring, nationally significant</li> </ul>
	population/number of any internationally important species.
National	<ul> <li>A nationally designated site (e.g. SSSI, NNR) or a discrete area which meets the published selection criteria for national designation (e.g. SSSI selection guidelines) irrespective of whether or not it has yet been notified.</li> <li>A viable area of a UK BAP priority habitat, or smaller areas of such habitat which are essential to maintain the viability of a larger whole.</li> <li>A regularly occurring significant number/population of a nationally important species e.g. listed on the Wildlife and Countryside Act 1981 (as amended).</li> <li>A regularly occurring population of a nationally important species that is threatened or rare in the county or region.</li> <li>A feature identified as being of critical importance in the UK BAP.</li> </ul>
Regional/County	<ul> <li>Viable areas of key habitat identified in the Regional or County BAP or smaller areas of such a habitat, which are essential to maintain the viability of the larger whole.</li> <li>Regional/county significant and viable areas of key habitat identified as being of regional value in the appropriate English Nature (now Natural England) Natural Area.</li> <li>A regularly occurring significant population/number of any important species important at a regional/county level.</li> <li>Any regularly occurring, locally significant population of a species which is listed in a Regional/County Red Data Book or BAP on account of its regional rarity or localisation.</li> <li>Sites of conservation importance that exceed the district</li> </ul>

Value	Examples
	selection criteria but that fall short of SSSI selection guidelines.
City/District/Borough	<ul> <li>Areas of habitat identified in a District/City/Borough BAP or in the relevant Natural Area profile.</li> <li>Sites that the designating authority has determined meet the published ecological selection criteria for designation, including Local Nature Reserves selected on District/City/Borough ecological criteria.</li> <li>Sites/features that are scarce within the District/City/Borough or which appreciably enrich the District/City/Borough habitat resource.</li> <li>A diverse and/or ecologically valuable hedgerow network.</li> <li>A population of a species that is listed in a District/City/Borough BAP because of its rarity in the locality or in the relevant Natural Area profile because of its regional rarity or localisation.</li> <li>A regularly occurring, locally significant number of a District/City/Borough important species during key phases of its life cycle.</li> </ul>
Local	<ul> <li>Areas identified in a Local BAP or the relevant natural area profile.</li> <li>Sites/features which area scarce in the locality or which are considered to appreciably enrich the habitat resource within the local context, e.g. species-rich hedgerows.</li> <li>Local Nature Reserves selected on Parish/Local ecological criteria.</li> <li>Significant numbers/population of a locally important species e.g. one which is listed on the Local BAP.</li> <li>Any species, populations or habitats of local importance.</li> </ul>
Low	<ul> <li>Habitats of moderate to low diversity which support a range of locally and nationally common species, the loss of which can be easily mitigated.</li> </ul>