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# South Shields Town Centre Masterplan

## Phase 1 Ecological Assessment



Prepared for Muse Developments Limited  
and South Tyneside Council

June 2015

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<b>Notes:</b>	<b>This report contains sensitive information concerning protected species and caution should be exercised when copying and distributing to third parties.</b>	

Report Status	Authorised for Release	Date	Position
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# 1. INTRODUCTION

## 1.1. Project Background

- 1.1.1. Muse Developments are working in partnership with South Tyneside Council on a long term plan for the redevelopment of South Shields Town Centre. The project has a number of development strands including the construction of a new Central Library & Digital Media Centre, a new Transport Interchange and wider proposals for the redevelopment of the remaining Town Centre. Muse Developments, along with South Tyneside Council and Nexus are currently submitting a full planning application for the development of a new Transport Interchange and in conjunction with South Tyneside Council an outline planning application for the masterplan for the wider re-development of the town centre.
- 1.1.2. This ecological assessment considers the proposals included in the masterplan for the Town Centre redevelopment (hereafter referred to as 'the Site') whose location and extent is shown in Figure 1.

## 1.2. Ecological Background

- 1.2.1. There have been no previous ecological surveys of the Site.

## 1.3. Project Brief and Objectives

- 1.3.1. **RDF** Ecology was initially appointed by Muse Developments Ltd to undertake the following:
- A desktop study and consultation with South Tyneside Council
  - An extended phase 1 habitat and protected species walkover surveys
  - Prepare a phase I habitat and protected species assessment report
- 1.3.2. However after completion of the first two items it was clear that there was a requirement for some limited bat activity surveys to be undertaken and therefore the following surveys were completed:
- Bat emergence surveys of selected buildings
  - Bat activity surveys to look for commuting and/or foraging bats within the Site
- 1.3.3. This report describes the findings of the desktop study and field survey work, evaluates the ecological interest of the Site, considers the potential impacts arising from the proposed development and makes recommendations for any further ecological survey work required along with preliminary outline mitigation measures.

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## 2. THE DEVELOPMENT PROPOSALS

- 2.1. The development proposals considered by this assessment are those associated with the outline planning application for the redevelopment of South Shields Town Centre which is illustrated on the Harris Partnership Illustrative Masterplan drawing number 12569M\_1002 Rev N.
- 2.2. The proposals include the demolition of properties on King Street, Barrington Street, Coronation Street, Fowler Street, Thomas Street, Franklin Street, Charlotte Street, Mount Terrace, St Hilda Street and Crossgate and existing bus stands on Chapter Row, followed by the erection of new retail use buildings (A1), restaurants and cafés (A3), cinema (D2) and a food store (A1) with multi-storey and surface car parking.

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## 3. PLANNING POLICY CONTEXT

### 3.1. National Planning Policy

#### 3.1.1. National Planning Policy Framework 2012

- 3.1.1.1. The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these are expected to be applied replaced. NPPF sets out the Government's national principles and policies for England on the protection of biodiversity and geological conservation through the planning system.
- 3.1.1.2. At the heart of the NPPF is a clear "***presumption in favour of sustainable development***, which should be seen as a golden thread running through both plan-making and decision-making" (Para 14).
- 3.1.1.3. The UK's Sustainable Development Strategy "Securing the Future" sets out 5 guiding principles of sustainable development:
- living within the planet's environmental limits;
  - ensuring a strong, healthy and just society;
  - achieving a sustainable economy;
  - promoting good governance; and
  - using sound science responsibly.
- 3.1.1.4. Section 11 of the NPPF sets out how the planning system should contribute to sustainable development by conserving and enhancing the natural environment through:
- protecting and enhancing valued landscapes, geological conservation interests and soils;
  - recognising the wider benefits of ecosystem services;
  - minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
  - preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability; and
  - remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

- 3.1.1.5. Paragraph 118 states that when determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:
- if significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
  - proposed development on land within or outside a Site of Special Scientific Interest likely to have an adverse effect on a Site of Special Scientific Interest (either individually or in combination with other developments) should not normally be permitted. Where an adverse effect on the site's notified special interest features is likely, an exception should only be made where the benefits of the development, at this site, clearly outweigh both the impacts that it is likely to have on the features of the site that make it of special scientific interest and any broader impacts on the national network of Sites of Special Scientific Interest;
  - development proposals where the primary objective is to conserve or enhance biodiversity should be permitted;
  - opportunities to incorporate biodiversity in and around developments should be encouraged;
  - planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss; and
  - the following wildlife sites should be given the same protection as European sites:
    - » potential Special Protection Areas and possible Special Areas of Conservation;
    - » listed or proposed Ramsar sites; and
    - » sites identified, or required, as compensatory measures for adverse effects on European sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites



- 3.1.1.6. Additionally paragraph 119 notes that the “*presumption in favour of sustainable development (paragraph 14) does not apply where development requiring appropriate assessment under the Birds or Habitats Directives is being considered, planned or determined*”.
- 3.1.1.7. Annex 1 of the NPPF sets out the implementation and notes the following:
- The policies in the NPPF apply from the day of publication, i.e. 27 March 2012 (Para 208).
  - The policies in Local Plans (and the London Plan) should not be considered out-of-date simply because they were adopted prior to the publication of the NPPF (Para 211). However, the NPPF policies are material considerations which local planning authorities should take into account from the day of its publication. The NPPF must also be taken into account in the preparation of plans (Para 212), which may need to be revised and which should be done as quickly as possible (Para 213).
- 3.1.1.8. *ODPM Circular 06/2005* (Government Circular: Biodiversity and Geological Conservation—Statutory Obligations and their Impact within the Planning System) continues to provide administrative guidance on the application of the law relating to planning and nature conservation as it applies in England. It complements and supports the expression of national planning guidance set out in NPPF.

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## 4. SURVEY METHODOLOGY

### 4.1. Desktop Study and Consultations

- 4.1.1. A range of data sources were consulted to obtain ecological information about the study area and its immediate surroundings and included the following:
- Environmental Records Information Centre for the North East of England (ERIC).
  - Multi Agency Geographic Information for the Countryside (MAGIC) website
  - Natural England web site and online SSSI database
  - The National Biodiversity Network on-line Biological Records Database.
- 4.1.2. Informal discussions were held with South Tyneside Council's Countryside Officer regarding the project in order to identify any areas of potential ecological concern to be addressed in this assessment

### 4.2. Field Survey

#### 4.2.1. Extended Phase I Habitat Survey Methodology

- 4.2.1.1. A preliminary extended phase 1 habitat survey of the Site was completed on 18 and 19 February and a further visit made on 7 May 2015 to review the habitat categorisation and to provide additional plant species records. All habitats within the Site were surveyed.
- 4.2.1.2. Habitats present on the Site were classified and mapped according to the Joint Nature Conservation Committee (JNCC) Phase 1 Habitat survey methodology (JNCC, 2010).
- 4.2.1.3. A phase 1 habitat survey provides sufficient information on the composition of the vegetation present to enable it to be characterised and assessed.
- 4.2.1.4. Fauna and flora present at the time of survey were recorded and the Site was assessed for its potential to support notable and/or protected species that could be impacted by development following CIEEM guidance (CIEEM, 2013). Target notes were made for any features of ecological interest. Plant species were recorded following the nomenclature in Stace (1997) and lists of species are included in Appendix 1.

## 4.3. Protected Species

### 4.3.1. Bats

4.3.1.1. Whilst completing the extended phase I habitat survey a preliminary bat roost assessment was undertaken in accordance with best practice guidelines (Hundt, 2012).

#### *Tree Assessment—bats*

4.3.1.2. Trees on and adjacent to the Site were assessed for their potential to support roosting bats in accordance with best practice guidelines (Hundt, 2012). The trees were examined from the ground using direct observation, binoculars and a high powered torch where appropriate. The trees were classified according to the criteria detailed below in Table 1, based upon the visible features of the tree. These features include natural holes, woodpecker holes, cracks/splits in major limbs, loose bark, behind dense, thick stemmed ivy, hollows/cavities and within dense epicormic growths. For extensive areas of woodland, where all trees could not be fully checked the woodland as a whole, this was assessed for its potential for roosting bats based upon the overall age and character of the trees present.

**Table 1—Criteria for bat roost potential assessment of trees (based on interpretation of Hundt, 2012)**

Tree Category	Description
Confirmed	Tree with features confirmed to be used by roosting bats either by historic records (verified appropriately), or evidence recorded during survey.
High	Tree with highly suitable features capable of supporting larger roosts. The habitat is connected to wider landscape by strong linear features that may be used by commuting bats e.g. river valley, streams and hedgerows.
Moderate	Tree with definite bat roost potential but with only one or two suitable features, or multiple features with the potential to be used by individual/small numbers of bats. Surrounding area includes good quality foraging habitat for bats e.g. broadleaved woodland, tree-lined watercourses and grazed parkland; or tree with highly suitable features though its context is less optimal.
Low	Tree with less suitable features capable of supporting individual/small numbers of bats within a suboptimal location; tree in suitable habitat and of a size and age that elevated surveys are considered likely to result in cracks or crevices being found; or tree with definite bat roost potential which is isolated and within low quality foraging habitat meaning that the presence of a roost is considered less likely.
Negligible	Tree with no potential opportunities for roosting bats, or very few or minor features in an isolated/unsuitable location such that the presence of a roost is considered highly improbable e.g. isolated from suitable foraging or commuting habitats.

### **Buildings Assessment**

- 4.3.1.3. The buildings on and adjacent to the Site were visually assessed for potential access points and evidence of bat activity using binoculars to view upper floor areas and roofs along with a one million candlepower torch to aid visibility.
- 4.3.1.4. The survey sought to identify features such as small gaps in the pointing and brickwork, or in or around barge/soffit/fascia boards, raised or missing ridge tiles and gaps at gable ends, all of which provide potential access points for bats. Evidence to indicate that potential access points were actively used by bats included looking for staining within gaps and bat droppings or urine staining under gaps; any marks such as these were recorded. Indicators that potential access points were likely to be inactive included the presence of cobwebs and general detritus within the access.
- 4.3.1.5. Where safe access was possible, buildings were thoroughly examined for any evidence of bat activity including looking for live or dead bats, droppings, feeding remains or staining. Specifically, the visual survey involved:
- Assessment for droppings on walls, windowsills and in roof spaces
  - Scratch marks and staining on beams, other internal structures and potential entrance and exit holes
  - Wing fragments of butterfly and moth species underneath beams and other internal structures
  - The presence of dense spider webs at a potential roost can often indicate absence of bats
  - Assessment of crevices and cracks in the buildings to assess their importance for roosting bats
- 4.3.1.6. Evidence of a roost was determined by the presence of a live or dead bat, concentrated piles or scattered droppings, food remains such as insect wing fragments as well as scratch marks and/or staining.
- 4.3.1.7. When a roost is positively identified during an internal and external visual inspection the buildings within which the roost is located is classified within the category roost present. Other buildings are classified as at high, medium or low risk of containing bat roosts based upon the number and quality of features present, and the building position in relation to the surrounding environment. Table 2.2 below shows the features considered when attributing a risk classification to a building.

- 4.3.1.8. A high risk building would typically be an older building situated close to high quality bat foraging habitats such as woodland, water features or substantial hedgerows. Buildings falling within this class will usually offer a variety of roosting opportunities suitable for use by a range of bat species.
- 4.3.1.9. Conversely a low risk building will typically be well sealed and of modern construction, offering no or few clear access points or roosting opportunities. The risk of a building housing a bat roost is further reduced if located within an area of poor quality habitat such as hard standing or amenity grassland.

**Table 2—Criteria for bat roost potential assessment of buildings (based on interpretation of Hundt, 2012)**

Low Risk	Medium Risk	High Risk
No easily identifiable access points such as gaps within stonework or between tiles.	Some access points. Typically obscured by cobwebs or detritus.	Several possible access points. Some clean showing potential use.
No roof void	Small or cluttered roof void	Large roof void with unobstructed flying spaces
No external cavities such as crevices within wall or behind fascia boards	Few external cavities with cavities present of low suitability	A variety of external features offering a range of roosting locations
Located within areas of poor quality habitat, away from bat foraging or commuting routes	Area offering some habitat features likely to be used by bats	Good connectivity to high quality habitats
Not part of a group of buildings	Part of a group of buildings, all offering similar roosting opportunities	Part of a group of buildings offering a range of different conditions and potential roost locations
Heavily disturbed	Potential roosting locations suffering little disturbance	Building disused or little used, largely undisturbed

### **Dusk Emergence Surveys**

- 4.3.1.10. Emergence surveys are used to determine bat presence in a building and can also give a good estimate of the numbers present. Common pipistrelle (*Pipistrellus pipistrellus*) bats can emerge up to 30 minutes before sunset and brown long-eared bats (*Plecotus auritus*) may emerge up to an hour after sunset and survey times should be selected to reflect this variation in emergence time and the species likely to be encountered.
- 4.3.1.11. The survey times for this project were selected to ensure that bats could be observed emerging from roosts and also to record any foraging and commuting activity taking account of the variance in emergence times shown by different bat species.

4.3.1.12. To ensure that all potential access points identified in the daytime visual inspection could be observed, 3 surveyors were positioned around the selected buildings and surveys were undertaken on two separate evenings on 13 and 21 May 2015

4.3.1.13. The approximate locations of the surveyors are shown in Figure 4.

#### **Bat activity Survey**

4.3.1.14. After discussions with the South Tyneside Countryside Officer it was determined to undertake a two bat activity surveys after completion of the dusk emergence surveys to look for any evidence of commuting and/or foraging bats around the Town Centre.

4.3.1.15. Transect surveys were undertaken on the evening of 13 and 21 May 2015 in suitable weather conditions after completion of dusk emergence surveys and comprised linear transect routes designed to look at the most likely areas for foraging and/or commuting bats and they are shown in Figure 4.

#### **4.3.2. Wild Birds**

4.3.2.1. Habitats within and adjacent to the Site boundary were assessed for their suitability for nesting birds, in particular to look for any evidence of roof nesting gulls. Bird species seen or heard during the survey were recorded.

### **4.4. Limitation of Field Survey**

4.4.1. The initial extended phase 1 habitat survey was undertaken in February outside the optimal vegetation survey period (April to September) However, in acknowledgement of this limitation a further visit was made on 7 May 2015 specifically to record plant species within the optimal vegetation survey period. Given the timings of the survey and the nature of the habitats recorded on Site it is considered that no limitations are present in the assessment of the Site for protected/notable species and habitats. However, an extended phase 1 habitat survey does not comprise a full botanical assessment of all species present within a Site; therefore species lists are indicative only.

4.4.2. The baseline conditions described in this report are accurate at the time at which the survey was undertaken. Should considerable time pass (e.g. more than 2 years) and/or conditions/land-use on the Site change prior to the commencement of works, it is recommended that an up-date survey is undertaken.

## 5. DESKTOP STUDY RESULTS

### 5.1. Statutory Designated Sites

- 5.1.1. The Site is not covered by any statutory nature conservation designations. No sites covered by a statutory nature conservation designation are located within 1km of the Site. The nearest statutorily designated sites are Northumberland Shore Site of Special Scientific Interest (SSSI) which lies approximately 1.3km to the north east on the north bank of the Tyne Estuary and the Northumbria Coast Special Protection Area (SPA) and Ramsar site which lies approximately 1.1km east of the development site.
- 5.1.2. A number of other sites covered by statutory nature conservation designations are located between 1-2km away from the Site boundary along the coast to the east of the Site and includes The Durham Coast Special Area of Conservation (SAC) and SSSI and The Northumbria Coast SPA and Ramsar site.
- 5.1.3. The locations of these designated sites are shown in Figure 2.

### 5.2. Non-Statutory Designated Sites

- 5.2.1. Sites of Nature Conservation Importance and Magnesian Limestone Grassland designations previously set out in the South Tyneside Unitary Development Plan, along with new designations in South Tyneside are now designated as Local Wildlife Sites (LWS). LWS are selected by South Tyneside Council in partnership with Durham Wildlife Trust in accordance with the guidance in the document “Designation and Management of Local Wildlife Sites in South Tyneside”
- 5.2.2. The Site is not designated as a LWS and only a single designated LWS is located within 1km of the Site south of the River Tyne. The nearest LWS sites are shown in table 1 below:

**Table 3—Local Wildlife Sites within 2km of the Site**

Site Name	Designation	Distance from Planning Application sites
The Leas	LWS (South Tyneside)	1.5km SE at nearest point
South Marine Park Lake	LWS (South Tyneside)	850m E at nearest point
South Shields Dunes	LWS (South Tyneside)	1.1km E at nearest point
River Tyne – Tidal Extent	LWS (Northumberland)	430m W at nearest point
Tyne Entrance	LWS (Northumberland)	1.5km N at nearest point
Northumberland Park	LWS (Northumberland)	1.8km N at nearest point

- 5.2.3. A single large LWS is located along the north bank of the River Tyne, and is recorded as the River Tyne Tidal Extents LWS and lies within 430m of the Site at its nearest location.

5.2.4. The locations of these designated sites are shown in Figure 2.

### 5.2.1. Protected Species

5.2.1.1. The desktop study did not identify any protected species records relating to the Site or in such proximity to the Site that they needed to be included in this assessment.

5.2.1.2. Data from ERIC indicated that there were small number of Bat records (6 in total) within 2km of the Site and Five of the six records are from locations to the north or the River Tyne. None of these records were within 1km of the Site and they include 3 records for Common Pipistrelle (*Pipistrellus pipistrellus*), 2 records for Nathusius's Pipistrelle (*Pipistrellus nathusii*) and a single record of an unidentified Myotis bat considered to be Whiskered (*Myotis mystacinus*) or Brandt's (*Myotis brandtii*).



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## 6. EXTENDED PHASE 1 HABITAT AND BAT SURVEY RESULTS

### 6.1. Introduction

- 6.1.1. The results of the extended phase 1 habitat survey are presented below. An extended phase 1 habitat survey map is shown in Figure 3 and illustrates the location and extent of all habitat types recorded on Site.

### 6.2. Habitat Descriptions

- 6.2.1. The Site comprised largely of existing buildings and hard surfaces with only one area of semi-natural vegetation established previously disturbed ground at the junction of Charlotte Street and St Hilda Street. Elsewhere the vegetation was limited to urban street trees and patches of ornamental landscape amenity planting.
- 6.2.2. The following phase 1 habitat types (JNCC codes in parenthesis) were recorded on or adjacent to the Site during the field survey:
- Dense/Continuous Scrub (A2.1);
  - Tall Ruderal Vegetation/Semi-improved Neutral Grassland Mosaic (C3.1/B2.2);
  - Amenity Grassland (J1.2) and ;
  - Introduced Shrub (J1.4)

#### 6.2.1. Dense/Continuous Scrub (A2.1)

- 6.2.1.1. The steep banks of the existing railway line that runs along the western site boundary are covered with open scrub habitat with some small sapling trees and larger trees that have been recently managed and reduced in height.
- 6.2.1.2. The main species were hawthorn (*Crataegus monogyna*) and elder (*Sambucus nigra*) along with some saplings/young trees of sycamore (*Acer pseudoplatanus*), ash (*Fraxinus excelsior*) and rowan (*Sorbus aucuparia*).
- 6.2.1.3. The ground vegetation was open and sparse comprising areas of bramble (*Rubus fruticosus agg*) underscrub with some stands of common nettle (*Urtica dioica*) through which clambered stands of cleavers (*Galium aparine*). Other species included cow parsley (*Anthriscus sylvestris*), creeping thistle (*Cirsium arvense*), mugwort (*Artemisia vulgaris*) and hogweed (*Heracleum sphondylium*) with a limited range of coarse grasses including common couch (*Elytrigia repens*), Yorkshire fog (*Holcus*

*lanatus*), cock's-foot (*Dactylis glomerata*) and false oat-grass (*Arrhenatherum elatius*).



Photograph 1—Scrub on steep railway embankments

## 6.2.2. Tall Ruderal Vegetation/Semi-improved Neutral Grassland Mosaic (C3.1/B2.2)

- 6.2.2.1. A small area of tall ruderal vegetation and semi-improved neutral grassland with some areas of invading silver birch (*Betula pendula*) and goat willow (*Salix caprea*) scrub was located in the south of the area on previously disturbed ground.



Photograph 2—Previously disturbed ground with sparse grassland and invading bramble scrub

- 6.2.2.2. The northern section contained the excavated foundations for buildings with concrete bases and sparse neutral grassland with invading bramble scrub, which was particularly dense along the northern boundary. The grassland contained common bent (*Agrostis capillaris*), red fescue (*Festuca rubra*), Yorkshire fog, false oat-grass, perennial rye-grass (*Lolium perenne*), cock's-foot and common couch. Broad-leaved species included common mouse-ear (*Cerastium fontanum*), shepherd's-purse (*Capsella bursa-pastoris*), white clover (*Trifolium repens*), pineappleweed

(*Matricaria discoidea*), field forget-me-not (*Myosotis arvensis*), knotgrass (*Polygonum aviculare* agg.), ribwort plantain (*Plantago lanceolata*), dandelion (*Taraxacum officinale* agg.) and broad-leaved dock (*Rumex obtusifolius*).

- 6.2.2.3. To the south of this area the vegetation was more diverse and well developed with frequent to abundant common bent, red fescue, Yorkshire fog, false oat-grass, perennial rye-grass and cock's-foot along with a range of broad-leaved species including robust ruderals such as cow parsley, mugwort, hogweed, creeping thistle, spear thistle, broad-leaved dock, common ragwort and rosebay willowherb (*Chamerion angustifolium*) with some small stands of great willowherb (*Epilobium hirsutum*) in areas of seasonally wet ground. Other species here included common mouse-ear, white clover, field forget-me-not, ribwort plantain, creeping buttercup (*Ranunculus repens*), dandelion and white clover along with less frequent bush vetch (*Vicia sepium*), red clover (*Trifolium pratense*) and bulbous buttercup (*Ranunculus bulbosus*).



Photograph 3—neutral grassland with ruderal vegetation and developing scrub

- 6.2.2.4. Within this area were patches of developing silver birch and goat willow scrub with occasional plants of butterfly-bush (*Buddleja davidii*).

### 6.2.3. Amenity Grassland (J1.2)

- 6.2.3.1. On the site of the former Gazette building at Chapter Row the former building foundations have been soiled over and seeded with grassland which was just beginning to establish on site in May 2015 and included common bent, red fescue and perennial rye-grass with occasional common chickweed and annual meadow-grass (*Poa annua*).

### 6.2.4. Introduced Shrub (J1.4)

- 6.2.4.1. Throughout the site areas of ornamental amenity planting are present with the largest areas being along the boundaries of the car park south of

Coronation Street. Species here included ornamental ground cover shrubs and plants such as cotoneaster (*Cotoneaster spp*), Ornamental honeysuckle (*Lonicera nitida*) and shrubby cinquefoil (*Potentilla fruticosa agg.*) with occasional ornamental street trees. The beds in some places were neglected and here coarse grasses including Yorkshire fog, common couch and cock's-foot were established along with occasional creeping thistle, broad-leaved dock and cleavers.

## 6.3. Protected Species

### 6.3.1. Bats

#### *Tree Assessment*

- 6.3.1.1. The site does not contain any large trees which have features of potential value to roosting bats.

#### *Building Assessment*

- 6.3.1.2. The buildings marked for demolition in order to accommodate town centre re-development were assessed in the main to have negligible value for roosting bats. These were all typically modern flat roofed buildings comprising brick and rendered brick construction with no obvious gaps in mortar joints or around the roof edges with modern tight fitting uPVC windows providing no obvious access points for bats.
- 6.3.1.3. No evidence of roosting bats was recorded during the external examination of the buildings.
- 6.3.1.4. The streets around the Site are all well lit at night by street lights, in particular the car park areas to the south of the Site.



Photograph 4—Buildings on East Street to be demolished showing modern brick construction and flat roofs

- 6.3.1.5. Many of the buildings are still used as commercial premises and some are of much more modern construction such as the Orange Grass Thai restaurant on Mount Terrace which is of modern brick construction with a

well maintained concrete tiled roof providing no potential access points for roosting bats.



Photograph 5—Orange Tree Restaurant with modern brick construction and well maintained roof structure

- 6.3.1.6. Other buildings had pitched corrugated metal roofs and metal clad walls such as the car workshop buildings on Mount Terrace



Photograph 6—Car workshops on Mount terrace with corrugated metal roof

- 6.3.1.7. A small number of buildings had nets erected over the roof structure to prevent their use by feral pigeons and gulls and whilst the size of mesh would not prevent bat access to the roof structures it is likely to act as a significant deterrent to their use of buildings for roosting.
- 6.3.1.8. The large industrial buildings along Garden Lane were heavily used by feral pigeons with large numbers of birds recorded during the survey and this is also likely to deter use by roosting bats.
- 6.3.1.9. However a small number of buildings were assessed to have low potential for roosting bats and this included the terrace of buildings along Fowler Street.



Photograph 7—Buildings along Fowler Street

- 6.3.1.10. These were older buildings with pitched roofs and less well maintained structures which provided some very limited potential for bat access to roost location and consequently a dusk emergence survey was completed on 21 May 2015 with three surveyors.



Photograph 8—Cross Arms Hotel

- 6.3.1.11. In addition, the Cross Arms Hotel on the corner of Barrington Street and Cornwallis Street and the nearby former Thorburn and Chapman Accounts Offices were also assessed to have low value for roosting bats and a dusk emergence survey of these buildings was completed on 13 May 2015 with two surveyors.

### **Activity Survey**

- 6.3.1.12. A single common pipistrelle (*Pipistrellus pipistrellus*) was recorded on the transect survey on the evening of 13 May feeding in the churchyard immediately to the south of St Hilda's Church at 22.15 where it remained feeding for approximately 5 minutes before leaving to the west.

### **Dusk Emergence Surveys**

6.3.1.13. No bats were recorded emerging from any of the buildings selected for emergence survey and no bats were recorded during the dusk emergence surveys.

### **6.3.2. Wild Birds**

6.3.2.1. No evidence of roof nesting gulls was recorded during the field survey although a number of herring gulls (*Larus argentatus*) were recorded flying over the Site.

6.3.2.2. Some of the buildings had roof nest to prevent their use by nesting gulls and feral pigeons.

6.3.2.3. The only other birds recorded were from the scrub vegetation on the railway embankments and included robin (*Erithacus rubecula*), blackbird (*Turdus merula*) and a singing wren (*Troglodytes troglodytes*).

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## 7. EVALUATION AND RECOMMENDATIONS

### 7.1. Overall Approach to Assessment

7.1.1. The overall approach to assessment adopted by the study team is based upon the guidelines for Ecological Impact published by the Institute of Ecological and Environmental Management Assessment (Terrestrial and Freshwater and Coastal (CIEEM 2006) and Marine, Coastal and Estuarine (CIEEM 2010) and can be summarised as below:

1. To identify the likely zone of influence (study area) arising from the whole lifespan of the project;
2. To identify and value the features of nature conservation interest within the ecological study area in a systematic way by establishing levels of interest for ecological features measured against definable criteria. The term Valued Ecological Receptor (VER) is used to describe the species, communities, habitats or sites selected for detailed study during the process of ecological impact assessment.
3. To identify the biophysical changes attributable to the project that are likely to affect valued ecological features and resources;
4. To assess whether these biophysical changes are likely to give rise to a significant ecological impact, defined as an impact on the integrity of a defined site or ecosystem and/or the conservation status of habitats or species within a given geographical area, including cumulative and in-combination impacts;
5. To consider appropriate refinement of the project to avoid or reduce identified negative impacts and incorporate mitigation measures and/or compensation measures for any residual significant negative impacts and ecological enhancement measures to improve the wider environment;
6. To undertake an assessment of the ecological impacts of the refined project and definition of the significance of these impacts, including cumulative and in-combination impacts;
7. To provide advice on the consequences for decision making of the significant ecological impacts, based on the value of the resource, feature or function; and



8. Where appropriate to make recommendations for monitoring the implementation and success of mitigation and compensation measures and ecological outcomes, including feedback in relation to predicted outcomes.

## 7.2. Determining Value

- 7.2.1. The CIEEM guidelines advocates an approach to the valuation of ecological features using a geographical framework (full details in Appendix 3) based upon the following:
  - International;
  - National; (i.e. England/Northern Ireland/Scotland/Wales)
  - Regional;
  - County/Metropolitan
  - District/Unitary Authority/City or Borough
  - Local/Parish
  - Within zone of influence only
- 7.2.2. The thorough evaluation of the ecological importance of the features of a site is essential in order to assess the significance of the ecological effects of the development proposals.
- 7.2.3. The evaluation criteria are given in detail in Appendix 2. Their aim is to consider the habitats, communities and species present on site in relation to the following:
  1. The legislative framework (e.g. the Wildlife and Countryside Act 1981 and the EC Directive on the Conservation of Habitats and Wild Fauna and Flora (92/43/EEC) for the presence of protected species and habitats).
  2. Nature conservation designations, including national site designations (Sites of Special Scientific Interest, National Nature Reserves etc), local designations (Sites of Importance for Nature Conservation, Local Nature Reserves, County Wildlife Sites etc).
  3. Accepted criteria for species rarity and declining populations, and rarity of habitat types or communities, including species and habitats identified in the British Red Data Books, national biodiversity action plan, and species and habitats identified in regional or local biodiversity action plans where available.
  4. Accepted criteria for overall site evaluation (including rarity, diversity, naturalness, historical factors and issues relating to landscape ecology).

## 7.3. Evaluation of Survey Results and Recommendations

### 7.3.1. Nature conservation Designations

- 7.3.1.1. The Site is not covered by any statutory or non-statutory nature conservation designations.
- 7.3.1.2. The nearest sites covered by statutory nature conservation designations are approximately 1km away and whilst these are important sites of National and International importance neither the sites nor their special interest features would be directly or indirectly impacted by the proposed developments.
- 7.3.1.3. The River Tyne—Tidal Extent LWS is the closest LWS to the Site and is located approximately 430m to the west. South of the River Tyne there is only South Marine Park Lake LWS which is located within 1km of the development site boundary. None of the LWS within 2km of the Site would be directly or indirectly affected by the proposed development and are separated from the site by extensive areas of urban development.
- 7.3.1.4. Consequently, **no** further survey or assessment work to consider impacts upon sites covered statutory or non-statutory nature conservation designations or the species that they support is recommended.

### 7.3.2. Habitats

- 7.3.2.1. The only area of semi-natural vegetation within the Site is the area of ruderal vegetation and neutral grassland that has developed on formerly disturbed ground at the junction of Charlotte Street and St Hilda Street. This coarse vegetation supports a limited range of common and widespread urban species and is developing naturally with invading silver birch and goat willow scrub.
- 7.3.2.2. The remaining areas of soft landscape are areas of public realm amenity planting containing predominantly non-native ornamental shrubs with some invading native grasses and ruderal species and these are of negligible ecological value.
- 7.3.2.3. The habitats present within the Site are not protected by statutory or non-statutory nature conservation designations nor are they of any notable intrinsic ecological value supporting as they do a very limited range of common and widespread native species, typical of urban habitats.
- 7.3.2.4. Whilst the area of ruderal vegetation/neutral grassland on St Hilda Street would be lost along with some of the areas of urban amenity planting which will be lost or replaced with new amenity planting as part of the wider landscaping schemes, the scrub habitat on the railway

embankments would be retained and protected during the development. Consequently, **no** mitigation/replacement/compensation measures are recommended in relation to habitats and **no** further survey work is recommended.

### 7.3.3. Protected Species

#### *Bats*

- 7.3.3.1. The tree assessment indicates that there are no large trees present within or adjacent to the site that contain any features of known potential value to roosting bats such as rot holes, cracks, fissure etc. Most of the buildings within the site are assessed to be of negligible value to roosting bats due to their modern construction, flat roofs and lack of access points for roosting bats. Those buildings assessed to be of low value for roosting bats were examined at dusk for emerging bats on 13 and 21 May 2015 and none were recorded, neither were any bats recorded on the transect surveys conducted within the Site. The only bat recorded during the transect and emergence surveys was a single feeding common pipistrelle in the grounds of St Hilda's Church outside of the Site boundary. Furthermore, the buildings are all located in a heavily built up and well lit urban location with very little associated foraging habitat for bats and this further reduces their potential to support roosting bats.
- 7.3.3.2. Consequently, it is assessed that based upon current information the development **will not** have any direct negative impacts upon bats or bat roosts and therefore a licence for the demolition works **will not** be required.
- 7.3.3.3. However, the demolition works for the Town Centre re-development are not expected to commence until late 2017 or 2018 and will be completed over an extended period of 4-7 years. Consequently, it is recommended that a programme of bat surveys should be developed along with the programme for demolition of the buildings to ensure that up to date information on their potential use by bats is available to the project team in order to determine whether a Natural England (NE) European Protected Species (EPS) licence will be required and appropriate mitigation developed prior to building demolition commencing.

#### *Wild Birds*

- 7.3.3.4. The survey did not record any roof nesting gulls within the Site however, given that this species is known to nest on flat roofs elsewhere within South Shields it is recommended that demotion works be completed

outside of the bird nesting season (March to September) or where this is not practical that all flat roof areas be checked by a suitably qualified ecologist to ensure that no nesting gulls are present prior to demolition and to advise on suitable mitigation measures where nesting gulls are found.

- 7.3.3.5. The area of scrub habitat along the steep railway embankments provides locally important habitat for nesting birds given its urban location and low levels of human disturbance due to the steep banks which restrict access to the area. A small number of common urban birds were recorded there and are likely to breed at this location.
- 7.3.3.6. This area of scrub habitat would not be directly affected by the proposed development and the only potential effects would be limited to temporary disturbance during periods of construction works. However the area is already subject to disturbance from traffic noise and train traffic.
- 7.3.3.7. Consequently, it is assessed that the development **will not** have any direct negative impacts upon breeding birds resulting from habitat losses and no further survey is recommended unless demolition works have to be completed during the bird breeding season.

## 7.4. Evaluation and Recommendation Summary

- 7.4.1. Table 4 below summarises the value of the ecological resource of the Site and notes any appropriate recommendations for further survey work that may be required.

**Table 4—Evaluation and Recommendation Summary Table**

Resource	Importance	Reasons	Recommendations
<b>Habitats</b>			
Dense/continuous scrub (A2.1) on railway embankments	Parish / Neighbourhood	Species poor and supporting a limited range of common and widespread species. Value increased due to lack of other semi-natural habitat in this urban location Has some local value for breeding birds	No further habitat survey work recommended.  No further bird survey work recommended because no habitat losses will occur to accommodate proposed development and impacts will be limited to temporary disturbance during the construction phase.
Tall ruderal vegetation/neutral grassland (C3.1/B2.2)	Parish / Neighbourhood	Moderately species poor supporting a range of common and widespread species Value increased due to lack of other semi-natural habitat in this urban location	No further habitat survey work recommended.

Resource	Importance	Reasons	Recommendations
Amenity Grassland (J1.3)	Negligible	Very recently created and supporting a very limited range of common grass species	No further habitat survey work recommended.
Introduced shrubs habitat (J1.4) in amenity planting areas	Negligible	Contain a range of non-native species and limited numbers of native species, typically those of disturbed ground.	No further habitat survey work recommended.
<b>Protected Species</b>			
Bats	Negligible	No trees suitable for roosting bats present in Site. The majority of buildings examined were assessed to be of negligible value for roosting bats. Those buildings assessed to have low potential value for roosting bats were subject to dusk emergence surveys and no bats were recorded emerging from them. Furthermore no bat activity was recorded during transect activity survey within the Site boundary.	Demolition works for the Town Centre re-development are not expected to commence until late 2017 or 2018 and will be completed over an extended period of 4-7 years. Consequently, it is recommended that a programme of bat surveys should be developed along with the programme for demolition of the buildings to ensure that up to date information on their potential use by bats is available to the project team in order to determine whether a Natural England (NE) European Protected Species (EPS) licence will be required and appropriate mitigation developed prior to building demolition commencing.
Wild Birds	Parish / Neighbourhood	Scrub vegetation on railway embankment provides some habitat for nesting birds and flat roofs on buildings marked for demolition may provide nesting places for roof nesting gulls although none were recorded during the field surveys	Surveys only recommended where building demolition works have to be programmed to occur in bird breeding season (March to September). Flat roof areas to be checked for roof nesting gulls by suitably qualified ecologist.

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## 8. FIGURES

Figure 1 — Site Location

Figure 2 — Nature Conservation Designations

Figure 3 — Phase I Habitats


Figure 4 — Bat Emergence Surveys and Activity Transects

# South Shields Town Centre Masterplan

## KEY

 Masterplan Boundary



Scale 1:10,000 

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Fig: 1 Location Plan

# South Shields Town Centre Masterplan

## KEY

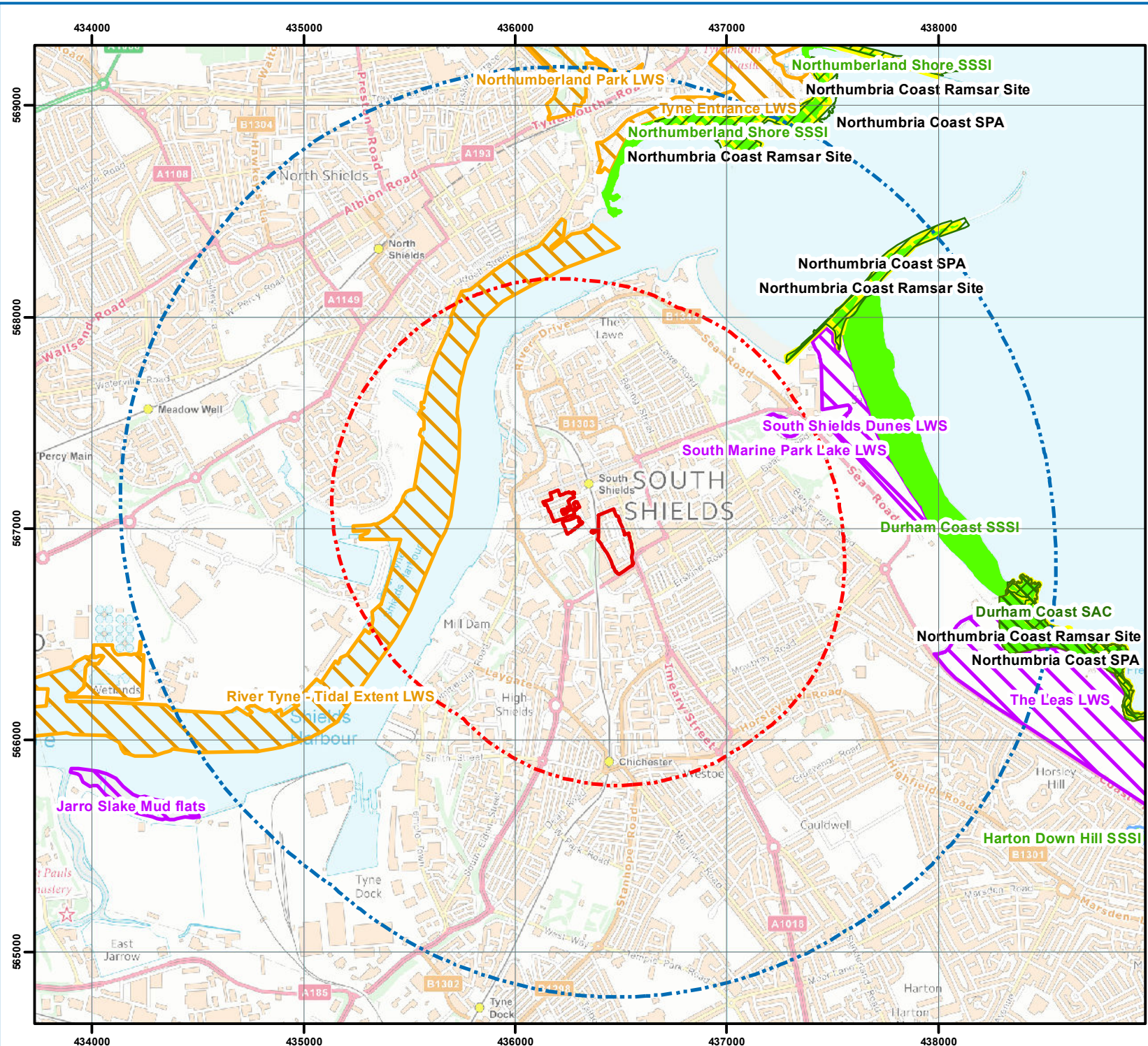
-  Masterplan Boundary
  -  1km Buffer
  -  2km Buffer
  -  Special Area of Conservation
  -  Special Protection Area
  -  Ramsar
  -  Site of Special Scientific Interest
- ### Local Wildlife Sites
-  Northumberland LWS
  -  South Tyneside LWS

Scale 1:25,000



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Fig: 2 Designations






# South Shields Town Centre Masterplan


## KEY


 Masterplan Boundary

### Phase 1 Habitats


#### Woodland and Scrub

 Broadleaved woodland - plantation


 Scrub dense/continuous


 Bramble Scrub dense/continuous


#### Grassland and Marsh

 Unimproved neutral grassland/tall ruderal mosaic

#### Miscellaneous

 Cultivated/disturbed land amenity grassland

 Introduced shrub

 Buildings and hard Surfaces

 Street Trees

Scale 1:2,500

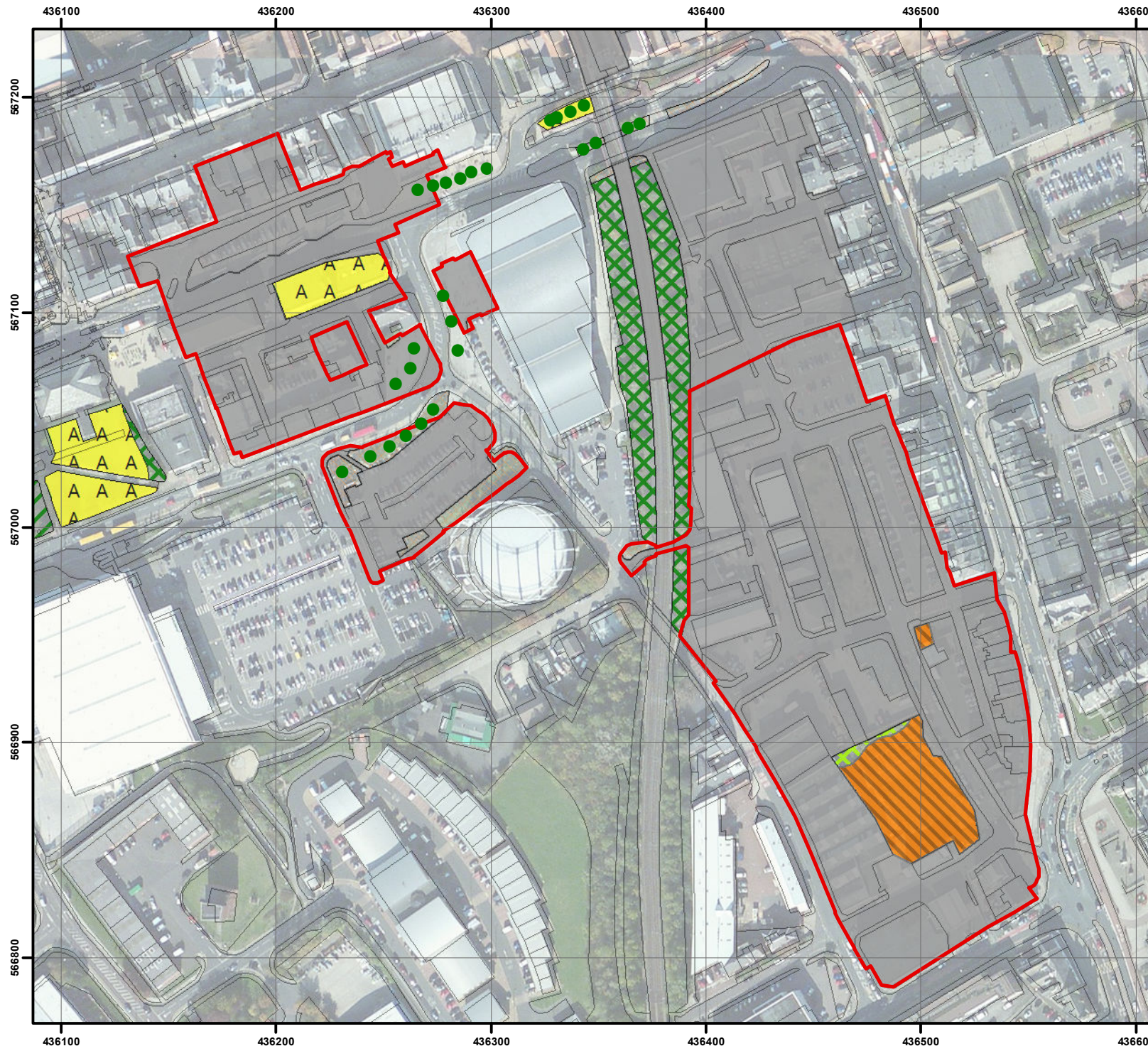


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Fig: 3 Phase 1 Habitats




# South Shields Town Centre Masterplan


## KEY

 Masterplan Boundary


## Bat Surveys


### Emergence Survey Locations

 13/05/2015

 21/05/2015

### Transect Routes

 13/05/2015

 21/05/2015

Scale 1:2,500

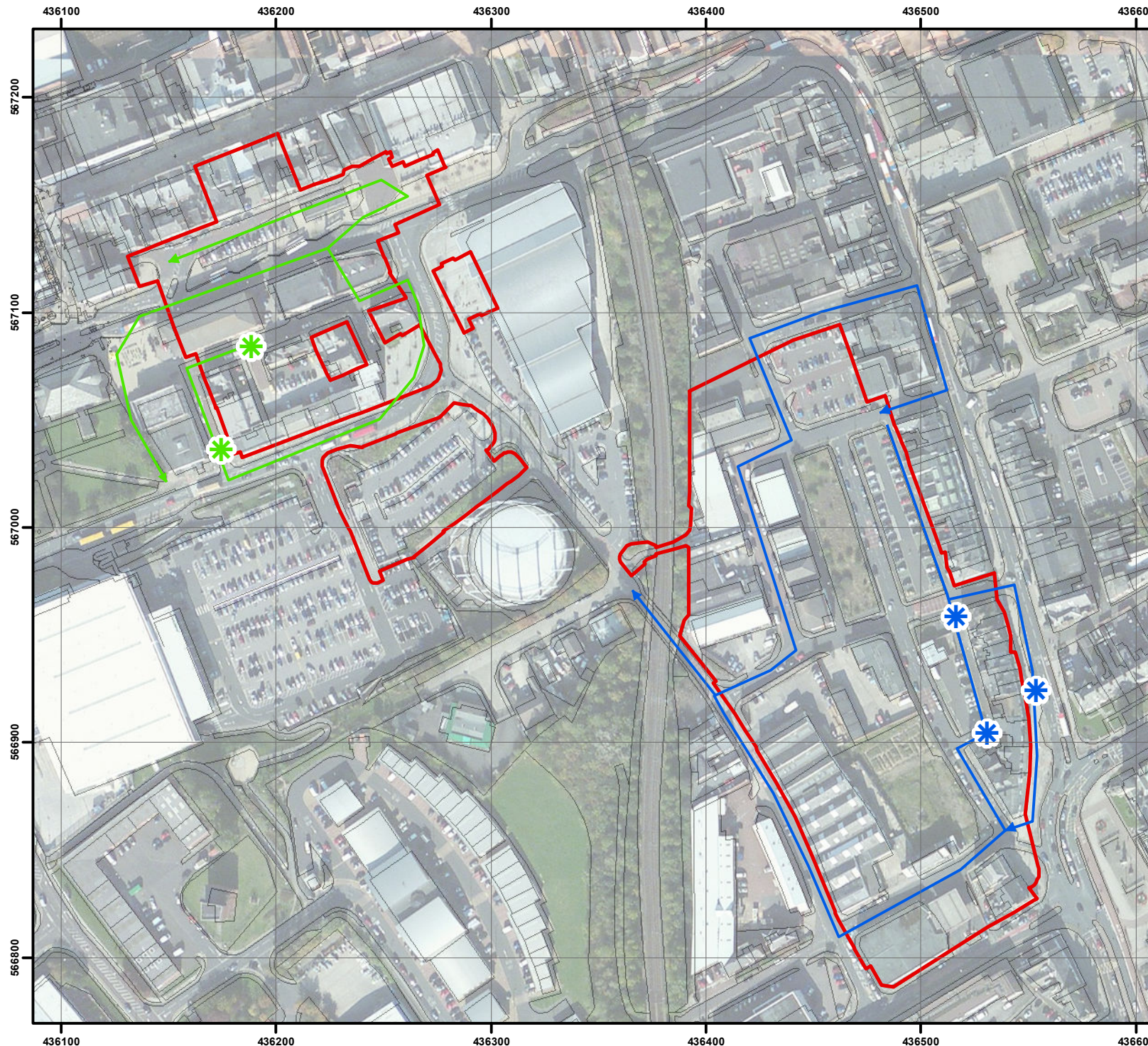


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Fig: 4 Bat Survey Locations



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## 10. APPENDICES

### 10.1. Appendix 1—List of Species

Common Name	Scientific Name	Scrub (A2.1)	Tall Ruderal/neutral Grassland mosaic (C3.1/B2.2)	Amenity Grassland (J1.2)	Introduced Shrubs (J1.4)
Sycamore	<i>Acer pseudoplatanus</i>	O	R		
Common Bent	<i>Agrostis capillaris</i>	R	F	R	
Cow Parsley	<i>Anthriscus sylvestris</i>	F	O		R
Mugwort	<i>Artemisia vulgaris</i>	O	O		O
Silver Birch	<i>Betula pendula</i>	R	O		O
Butterfly Bush	<i>Buddleja davidii</i>	R-O	O		
Common Mouse-ear	<i>Cerastium fontanum</i>	R	F-LA		R
Rosebay Willowherb	<i>Chamerion angustifolium</i>		O-LF		
Creeping Thistle	<i>Cirsium arvense</i>	O	O-LF		
Spear Thistle	<i>Cirsium vulgare</i>	O	O		R
Field Bindweed	<i>Convolvulus arvensis</i>		R		
Cotoneaster species	<i>Cotoneaster spp.</i>				F
Hawthorn	<i>Crataegus monogyna</i>	F	O		R
Cock's-foot	<i>Dactylis glomerata</i>	O-LF	F-A	R	O-LF
Great Willowherb	<i>Epilobium hirsutum</i>		LF		
Red Fescue	<i>Festuca rubra</i>	O	O-LF	F-A	O
Ash	<i>Fraxinus excelsior</i>	O	O		
Common Fumitory	<i>Fumaria officinalis</i>				R
Cleavers	<i>Galium aparine</i>	O-LF	F-LA		R
Hogweed	<i>Heracleum sphondylium</i>	O	O		
Yorkshire Fog	<i>Holcus lanatus</i>	F	F-LA		O-LF
Red Dead-nettle	<i>Lamium purpureum</i>	R	R		
Perennial Rye-grass	<i>Lolium perenne</i>	O	F	A	O
Pineapple-weed	<i>Matricaria discoidea</i>		O		
Ornamental Honeysuckle	<i>Lonicera nitida</i>				O-LF
Common Poppy	<i>Papaver rhoeas</i>		R		
Ribwort Plantain	<i>Plantago lanceolata</i>	R	O-LF		
Annual Meadow-grass	<i>Poa annua</i>	O	O	R	O-LF
Knotgrass	<i>Polygonum aviculare agg.</i>				
Cherry Laurel	<i>Prunus laurocerasus</i>				O
Bulbous Buttercup	<i>Ranunculus bulbosus</i>		R		
Creeping Buttercup	<i>Ranunculus repens</i>	O	O-LF		O
Bramble	<i>Rubus fruticosus agg.</i>	F-A	F-LD		O
Broad-leaved Dock	<i>Rumex obtusifolius</i>	R	O		R
Goat willow	<i>Salix caprea</i>		O		
Elder	<i>Sambucus nigra</i>	F	R		
Common Ragwort	<i>Senecio jacobaea</i>	R	O		
Groundsel	<i>Senecio vulgaris</i>	R	O		O
Prickly Sow-thistle	<i>Sonchus asper</i>	R	O		O

Common Name	Scientific Name	Scrub (A2.1)	Tall Ruderal/neutral Grassland mosaic (C3.1/B2.2)	Amenity Grassland (J1.2)	Introduced Shrubs (J1.4)
Rowan	<i>Sorbus aucuparia</i>	R			
Common Chickweed	<i>Stellaria media</i>		LF	R	O
Dandelion	<i>Taraxacum officinale</i> agg.	O	O-LF		O
Red Clover	<i>Trifolium pratense</i>		O		
White Clover	<i>Trifolium repens</i>	R	F		
Scentless Mayweed	<i>Tripleurospermum inodorum</i>		O		R
Common Nettle	<i>Urtica dioica</i>	O	O-LF		
Common Field-speedwell	<i>Veronica persica</i>		O	R	
Bush Vetch	<i>Vicia sepium</i>		O		

## 10.2. Appendix 2—Valuation Criteria

- 10.2.1. Guidelines for ecological evaluation and the assessment of impacts have been published by Institute of Environmental Assessment (1995) and the Institute of Ecology and Environmental Management (CIEEM 2006 and 2010).
- 10.2.2. The value that is attached to an ecological resource influences:
- whether, as part of screening, potentially affected features or resources are considered sufficiently valuable that there could be a significant effect that would trigger an EIA;
  - whether, as part of scoping, ecological features or resources are considered for inclusion in the EclA—this is influenced by their value in relation to a ‘threshold’ level of value that should be defined during scoping;
  - deciding what mitigation is appropriate and
  - considering legal and policy implications.

### 10.2.1. Legislative Framework

- 10.2.1.1. Species, communities or habitats receiving legal protection under UK or EC law have high importance on national and international scales.
- 10.2.1.2. Internationally important sites include Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites. In the UK candidate SACs, potential SPAs and proposed Ramsar sites should be given the same consideration as designated sites in accordance with country specific policies and supporting guidance.
- 10.2.1.3. Species, communities or habitats requiring protection under EC law are listed on schedules I and II (whose conservation requires the designation of Special Areas of Conservation), IV (species in need of strict protection) and V (species whose exploitation may be subject to management measures) of the EC Directive on the Conservation of Habitats and Wild Fauna and Flora (92/43/EEC). The enabling legislation for the UK is the Conservation (Natural Habitat, &c) Regulations 2010. Species may also be scheduled under Appendix 1 of the Convention on the Conservation of European Wildlife and Natural Heritage 1979 (Bern Convention).
- 10.2.1.4. Other sites of international importance designated under international obligations include Biosphere Reserves (UNESCO Man and Biosphere Programme), Ramsar Sites (Convention on Wetlands of International Importance especially as Wildfowl Habitat 1971) and Special Protection Areas (EC Wild Birds Directive 79/409).

- 10.2.1.5. Species with special protection under UK law are listed on the schedules of the Wildlife and Countryside Act 1981 and amendments. The act also gives rise to statutory site designations i.e. National Nature Reserves, Sites of Special Scientific Interest, Areas of Special Protection for Birds, and orders e.g. Limestone Pavement Orders.

### **10.2.2. UK Site Designations**

- 10.2.2.1. Sites of national importance include the statutorily designated Sites of Scientific Interest (SSSI) and National Nature Reserves (NNRs).
- 10.2.2.2. Lower levels of importance attach to locally designated sites such as those non-statutory site designations applied by Local Authorities or Wildlife Trusts e.g. Sites of Importance for Nature Conservation (SINC's or equivalent) or Local Nature Reserves designated under the National Parks and Access to the Countryside Act 1949. Such sites may be considered to be of High Local Importance i.e. important at the county or metropolitan level (CIEEM 2006).

### **10.2.3. Rarity of Species and Habitats**

- 10.2.3.1. The British Red Data Book for vascular plants (Perring and Farrell 1983) lists 317 species or subspecies as extinct, endangered, vulnerable and rare. Nationally rare species are defined as occurring in 1–15 10km squares of the national grid in Britain, nationally scarce species occurring in 16–100 10km squares. The presence of a breeding population of any nationally rare species is of national importance whereas a breeding population of a nationally scarce species is of regional importance. Assemblages of 2 or more species may increase the importance of a site further.
- 10.2.3.2. Regional rarities are defined as occurring in 15 or fewer localities or 1km squares in a former Nature Conservancy Council region (NCC 1989).
- 10.2.3.3. Biodiversity: The UK Steering Group Report contains a "Long List" of key species in the UK that fall into 1 or more of the following categories: threatened endemics or globally threatened; where the UK holds greater than 25% of the world population; where numbers or range have declined by more than 25% in the last 25 years; nationally rare species; and statutorily protected species. Presence of viable populations of such species may be of high importance.
- 10.2.3.4. County floras and biodiversity action plans, or district action plans may identify species that are rare at the county or district level. Viable populations will therefore have conservation importance in these contexts.

- 10.2.3.5. Further information on species rarity may be found in Scarce Plants in Britain (Stewart et al 1994) and the Atlas of the British Flora (Perring and Walters 1962) and subsequent revisions.
- 10.2.3.6. Biodiversity: The UK Steering Group Report has identified a number of key habitats under the following criteria: those for which the UK has international obligations; rare habitats or those with high rates of decline; functionally critical habitats (marine areas); and habitats that are important for key species. Sites containing good examples of viable areas of any key habitat may be considered nationally important.
- 10.2.3.7. Importance may be attached to plant community types defined in the National Vegetation Classification (Rodwell 1991 etc) that are also described as rare, declining or with restricted distributions or are identified as being of particular botanical importance (NCC 1989).

#### 10.2.4. Criteria for Overall Site Evaluation

- 10.2.4.1. The accepted criteria for site evaluation are set out by Ratcliffe (1977) in a Nature Conservation Review and are also explained in Guidelines for the Selection of Biological SSSI's (NCC 1989). The principal criteria are briefly outlined below:
- 10.2.4.2. **Naturalness.** Truly natural habitats are valued highly but are rare in Britain and most sites are modified and semi-natural at best. Physical habitat modifications vary greatly in their impact, some being beneficial whilst others are harmful. A greater degree of conformity of a particular community or site with semi-natural rather than highly modified vegetation types in the National Vegetation Classification and the absence of species indicating disturbance are likely to lead to attachment of higher importance. However, note that communities that appear to be intermediate between semi-natural NVC types are not necessarily of lesser quality.

**Size.** The area of a site or habitat judged to be viable varies greatly between different habitat types and with factors such as the condition of the habitat, the shape of the habitat area and surrounding land use. In addition, the territorial requirements of particular species within the site/habitat and habitat management factors may need consideration.

In general, larger sites or areas of habitat tend to be valued more highly because of the greater population sizes and hence more robust populations of the species within them; the potential for increased site or habitat diversity and hence greater species-richness over a larger area; and a reduced importance of edge effects (pollution drift, habitat



degradation/change for other reasons at the site edge) if the site is block rather than ribbon shaped. Small sites become increasingly important in areas of little semi-natural habitat.

**Rarity.** Criteria for rarity of species and habitats are outlined above. The scarcer the habitat or species then the higher the level of importance attached.

**Diversity.** Diversity tends to be valued positively as it increases. At the phytosociological level, some habitats are more species-rich than others and so have a higher value, provided that the richness does not involve non-native species. Some plant communities are intrinsically more species-rich than others so comparisons should only be made between the same community type.

The standard of floristic diversity is guided by the floristic tables within the National Vegetation Classification (NVC) (Rodwell 1991 etc). A community having more than 75% of the total plant species list for its type in the NVC would be rated very highly. Diversity of different communities within a vegetation formation (e.g. woodland) may also be rated highly as may structural diversity (e.g. rides, glades and differing age structures or canopy layering in woodland). Habitat diversity across a site may also increase its importance.

**Fragility.** Fragility is a measure of the intrinsic sensitivity of nearly all natural and semi-natural habitats and species to human impact. It is the fragility of such habitats and species which causes them to be more highly valued than any of the artificial substitutes which replace them through human activity; and the greater their fragility the greater their value. Fragility is therefore clearly related irreplacability or non-recreatability. Re-creation of habitats that have taken centuries to develop, sometimes with centuries of traditional management, is impossible to the full extent of their former complexity.

**Typicalness.** Typicalness is an indication of how characteristic the features of a site are compared to its particular ecosystem. It is intended as a guard against designation of those sites with unusual features as being always the most important.

**Position in an Ecological/Geographical Unit.** This is a landscape ecological criteria designed to identify sites or habitats which may be important to maintaining the viability of a larger group thereof; or which is essential in maintaining the population of a species with a large territory spanning several sites; or is one of a number of sites important to a

metapopulation of a species in fragmented landscapes; or may be important in a wildlife corridor or network of habitat patches.

### 10.2.5. Amenity Value

10.2.5.1. The amenity value of a site in ecological terms is generally seen as its value for the study or quiet enjoyment of wildlife. Sites with high intrinsic appeal and good access are therefore regarded as important in this context. Also important are issues such as site safety, proximity to schools and population centres and site management difficulties. Less emphasis is placed on the criteria outlined in section 9.1.4 in such situations.

### 10.2.6. Ecological Importance Summary Table

10.2.6.1. The following table has slightly modified from Regini (2000). Its definitions are adopted in this report. Where species, habitats or sites occur in more than one category, the highest level of importance is applicable. Sites that meet the criteria for a particular designation are afforded the level of importance corresponding to that designation whether or not they are actually designated.

**Table 5—Ecological Importance Summary Table**

Level of Value	Examples
International	<p>An internationally designated site or candidate site (SPA, pSPA, SAC, cSAC, pSAC, Ramsar site, Biogenetic Reserve).</p> <p>A viable area of a habitat type listed in Annex I of the Habitats Directive, or smaller areas of such habitat which are essential to maintain the viability of a larger whole.</p> <p>Any regularly occurring population of an internationally important species, which is threatened or rare in the UK. i.e. it is a UK Red Data Book species or listed as occurring in 15 or fewer 10km squares in the UK (categories 1 and 2 in the UK BAP) or of uncertain conservation status or of global conservation concern in the UK BAP.</p> <p>A regularly occurring, nationally significant population of any internationally important species.</p> <p>Also a regularly occurring and nationally significant number of an internationally important species during a critical phase of its life cycle.</p>
National	<p>A nationally designated site (SSSI, ASSI, NNR, Marine Nature Reserve) or a discrete area, which meets the published selection criteria for national designation (e.g. SSSI selection guidelines).</p> <p>A viable area of a priority habitat identified in the UK BAP, or of smaller areas of such habitat which are essential to maintain the viability of a larger whole.</p> <p>Any regularly occurring population of a nationally important species which is threatened or rare in the region or county (see local BAP).</p> <p>A regularly occurring, regionally or county significant population of any nationally important species.</p> <p>Also a regularly occurring and regionally or county significant number of a nationally important species during a critical phase of its life cycle.</p>

Level of Value	Examples
Regional	<p>Viable areas of key habitat identified in the Regional BAP or smaller areas of such habitat which are essential to maintain the viability of a larger whole;</p> <p>Viable areas of key habitat identified as being of Regional value in the appropriate Natural Area profile;</p> <p>Any regularly occurring, locally significant population of a species listed as being nationally scarce which occurs in 16-100 10km squares in the UK or in a Regional BAP or relevant Natural Area on account of its regional rarity or localisation;</p> <p>A regularly occurring, locally significant number of a regionally important species during a critical phase of its life cycle;</p> <p>Sites which exceed the County-level designations but fall short of SSSI selection guidelines, where these occur.</p>
County / Metropolitan	<p>Semi-natural ancient woodland greater than 0.25 ha;</p> <p>County/Metropolitan sites and other sites which meet the published ecological selection criteria for designation, including Local Nature Reserves selected on County / metropolitan;</p> <p>A viable area of habitat identified in County BAP;</p> <p>Any regularly occurring, locally significant population of a species which is listed in a County/Metropolitan "red data book" or BAP on account of its regional rarity or localisation;</p> <p>A regularly occurring, locally significant number of a County/Metropolitan important species during a critical phase of its life cycle.</p>
District / Borough	<p>Semi-natural ancient woodland smaller than 0.25 ha;</p> <p>Areas of habitat identified in a sub-County (District/Borough) BAP or in the relevant Natural Area profile;</p> <p>Local Nature Reserves selected on District/ Borough criteria</p> <p>Sites/features that are scarce within the District/Borough or which appreciably enrich the District/Borough habitat resource;</p> <p>A diverse and/ or ecologically valuable hedgerow network;</p> <p>A population of a species that is listed in a District/Borough BAP because of its rarity in the locality or in the relevant Natural Area profile because of its regional rarity or localisation;</p> <p>A regularly occurring, locally significant number of a District / Borough important species during a critical phase of its life cycle.</p>
Parish / Neighbourhood	<p>Areas of habitat considered to appreciably enrich the habitat resource within the context of the Parish or neighbourhood, e.g. species-rich hedgerows.</p> <p>Local Nature Reserves selected on Parish criteria.</p>
Zone of Influence Only	<p>Low grade, widespread and common habitats.</p>