33 Princess Road, Chinley
Ecological Appraisal

June 2013



Dunelm Ecology
consultant ecologists

Contents

1 Introduction 2
1.1 Background 2
1.2 Legislative and Planning Context 2
2 Methods and Approach 4
2.1 Field Survey 4
2.2 Survey Constraints 4
3 Results 7
3.1 Habitats 7
3.2 Protected and Priority Species 8
4 Discussion and Recommendations 10
4.1 Assessment 10
4.2 Recommendations 10
5 References 12

1 Introduction

1.1 Background

1.1.1 Dunelm Ecology Ltd was commissioned by Mr William Wilson to undertake an ecological appraisal of a small parcel of land at 33 Princes Road, Chinley. The survey was requested by High Peak Borough Council and was undertaken in support of a planning application to create four new residential properties within the property's rear garden. This would involve the felling and removal of most existing vegetation as well as the demolition of two small outbuildings, although the existing property and nearby Otter Brook would not be affected. The site is located close to the centre of Chinley in what is a mainly residential area.

1.1.2 The main objective of the survey was to identify the presence of any priority/protected species and habitats within the application site. This report provides an overview of the legislation and policies relevant to protected species and habitats within the UK. Also included are a description of the methods used and the results of the field survey. The implications of the survey findings are discussed, with an assessment of potential impacts provided and recommendations given as to what further measures are necessary.

1.2 Legislative and Planning Context

1.2.1 A range of international and national legislation has been established in the UK to protect important nature conservation sites and priority species. At the international level, European Union (EU) Directives require individual member states to implement their conservation provisions nationally for the benefit of Europe as a whole. These Directives have been transposed into UK law by the Conservation of Habitats and Species Regulations 2010.

1.2.2 Other international conventions include: the Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979), which requires the maintenance of populations of wild flora and fauna, giving particular protection to endangered and vulnerable species; and the Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979), which requires the protection of migratory species throughout their entire range. The above conventions are implemented in England and Wales via the Wildlife and Countryside Act (WCA) (1981) (as amended) and Countryside and Rights of Way (CRoW) Act 2000. This legislation also protects important habitats and sites such as Sites of Special Scientific Interest (SSSI).

1.2.3 At the national level, the UK Biodiversity Action Plan (UK BAP) is the government's response to the Convention on Biological Diversity (1992). It describes the UK's biological resources, commits a detailed plan for the protection of these resources, including numerous Species Action Plans (SAPs), Habitat Action Plans (HAPs) and Local Biodiversity Action Plans (LBAPs) with targeted actions. The species and habitats listed in these plans are legally protected to varying degrees through the Wildlife & Countryside Act 1981 (as amended).

1.2.4 The Hedgerows Regulations 1997 regulates hedgerow removal and affords increased protection to those meeting certain ecological, landscape, cultural or archaeological criteria.

1.2.5 The Protection of Badgers Act 1992 protects badgers and their setts from persecution. The purpose of this Act was, therefore, animal welfare as opposed to concern over the conservation status of this mammal, which is common and widespread across much of rural Britain.

1.2.6 The effects of developments on protected species are considered in the recently published National Planning Policy Framework (NPPF). Section 11 of the NPPF states that the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible. The NPPF also includes the requirement to contribute to the Government's commitment to halt the overall decline in biodiversity and to promote the reservation, restoration and recreation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets. Reference is also made to Circular 06/2005 Biodiversity and Geological Conservation - Statutory Obligations and Their Impact within the Planning System which states that protected species and habitats are a material consideration in the planning process.

1.2.7 Local authorities in England are required to ensure that where significant harm resulting from development cannot be avoided (through locating on alternative sites with less harmful impacts), adequately mitigated, or, as a last resort, compensated for; planning permission is refused. The commitment to preserving, restoring or enhancing biodiversity is further emphasised for England and Wales in Section 40 of the NERC Act 2006.

2 Methods and Approach

2.1 Field Survey

2.1.1 A Phase 1 Habitat Survey of the application site was undertaken on 17 June 2013. Phase 1 Habitat Survey is the standard technique for classifying and mapping British habitats (Joint Nature Conservancy Council (JNCC), 2003). The survey aimed to provide a record of habitats and plant species that are present within the site and to further investigate those that are likely to be ecologically important.

2.1.2 The survey was 'extended' to include a general assessment for the presence or potential presence of protected species, noting any areas of suitable habitat and the location and type of any field signs recorded. Owing to the location and character of the site, this element of the survey mainly focused on bats, badger, and otter. In particular, an inspection survey of all buildings and trees within the site was carried out. The survey was aided by the use of ladders, endoscope (Optiscope XT), close-focusing binoculars (Opticron Countryman BGA 8 x 42) and a powerful torch (Clulite 1M candle-power). The survey involved systematically searching the exterior and interior of buildings and trees for bats and their field signs. Such signs may include insect remains, droppings, grease marks, urine stains and smoothing or lack of cobwebs.

2.1.3 In addition, buildings and trees were assigned to a roost potential category, based on their suitability for supporting roosting bats (see Table 1). These criteria have been devised using information obtained from the *Bat Mitigation Guidelines* (Mitchell-Jones 2004) and *Bat Surveys Good Practice Guidelines* (Hundt 2012), as well as through professional experience.

2.1.4 The survey was carried out by Jon Guarnaccio MCIEEM who has over ten years experience of undertaking ecological assessments and holds survey licences for several protected species including bats and great crested newt.

2.2 Survey Constraints

2.2.1 The survey was undertaken at an optimal time of year for carrying out habitat and botanical surveys as most plant species are in flower and more readily identifiable than at other times of the year. It was also an appropriate time of year for undertaking faunal surveys as most species are active during the summer months. Access was possible to all relevant parts of the site and as such, no significant constraints are associated with the survey.

Table 1 Building and Tree Roost Potential Criteria

Roost Potential Category	Category Description	Indicator	
		Buildings	Trees
Confirmed Roost	Building with evidence of current use by bats i.e. confirmed roost.	• Sighting/hearing of bats (including emergence). • Presence of fresh droppings/staining.	• Sighting/hearing of bats (including emergence). • Presence of fresh droppings/staining.
	Building with evidence of recent use by bats.	• Small numbers of old droppings/old staining, smoothing and lack of cobwebs. • Roosts identified by personal communication from reliable source (e.g. property owner).	• Small numbers of old droppings/old staining, smoothing and lack of cobwebs. • Roosts identified by personal communication from reliable source (e.g. land owner).
High	Building has high potential to support bat roost(s).	• Buildings of early or pre 20th century origin with numerous access points for bats e.g. gaps under eaves, loose lead flashing and/or roof tiles. • Agricultural buildings of traditional, stone or timber construction and/or with exposed large wooden beams (>200mm thick) and mortise joints, cracks and holes. • Large and complicated roof voids, with unobstructed flying spaces. • Roof warmed by the sun, especially south facing roofs, free of strong draughts. • Undisturbed roof spaces. • Weatherboarding and/or hanging tiles with gaps. • Buildings in proximity to each other providing a variety of roosting opportunities. • Within 200m of good foraging habitat, particularly trees, parkland, woodland or waterbodies. • Well connected to wider landscape through presence of continuous linear features such as hedgerows, watercourses, farm-tracks etc.	• Trees with numerous roosting features (e.g. cracks, fissures, knot holes, loose bark, woodpecker holes, snag ends and other hollows) or the features present are considered optimal. • Trees with unobstructed flyways e.g. opening in the canopy. • Trees situated with 200 m of woodland, parkland or waterbodies • Well connected to wider landscape through presence of continuous linear features such as hedgerows, watercourses, farm-tracks etc.
Medium	Building has moderate potential to support bat roost(s)	• Buildings with some of the above features but are considered to be less suitable on account of their age, location and disturbance levels.	• Trees with some of the above features but are considered to be less suitable on account of their age, location and disturbance levels.
Low	Building has low potential to support	• Modern well maintained buildings with few or no access points for bats.	• Trees with limited suitable roosting features e.g. dense ivy cover or loose bark.

Roost Potential Category	Category Description	Indicator	
		Buildings	Trees
	bat roost(s)	• Small cluttered roof space. • Buildings comprised predominantly of prefabricated steel and sheet materials. • Roof sections with a dense cover of cobwebs and no sections of clean ridge board. • High levels of regular disturbance • Buildings with exposed roosting features which are open to the elements. • Location with few or no mature trees, parkland, woodland or water features and isolated due to a lack of commuting routes.	• Exposed roosting features e.g. downward facing hollows. • High levels of regular disturbance e.g. from lighting. • Trees isolated from suitable foraging habitat and commuting features.

3 Results

3.1 Habitats

3.1.1 Figure 1 shows the results of the Extended Phase 1 Habitat Survey, while photographs of the site are shown in Appendix I. The main habitat types present within the application site are described in detail below.

Amenity Grassland

3.1.2 Amenity grassland, in the form of mown areas of lawn, is present adjacent to the existing property. The lawns are species poor and comprise only a handful of species such as perennial rye grass and white clover.

Poor Semi-improved Grassland

3.1.3 This is the dominant habitat type within the application site. The sward is unmanaged and dominated by coarse grasses such as perennial rye grass, cock's foot, Yorkshire fog and rough meadow grass: species typical of species poor MG1 grassland associated with common herbs such as creeping buttercup, white clover, dandelion and daisy. Finer leaved grasses such as red fescue, crested dogs tail and sweet vernal grass are occasionally found within the sward along with herbs such as red clover and field speedwell (mainly around the paved areas where the soils are thinner).

Tall ruderal

3.1.4 Small discrete patches of tall ruderal comprising mainly common nettle and rosebay willowherb can be found amongst the grassland and shrub areas.

Intact species poor hedgerow

3.1.5 Two boundary hedges comprising beech and garden privet exist along the northern boundary and adjacent the property's driveway. The hedges appear to have been managed intensively in the past but they are now becoming overgrown. There is no ground flora associated with these hedges.

Scattered Broad-leaved Trees

3.1.6 Broad-leaved trees of varying ages occur occasionally throughout the site. These are mainly semi-mature specimens and include apple, silver birch, rowan, and sycamore. Mature willow trees occur frequently along the Otter Brook corridor.

Introduced Scrub

3.1.7 Borders of non-native and horticultural cultivars of shrub, typically 1 - 2m in height, are planted throughout the application site, and along the Otter Brook corridor where the vegetation is particularly dense. Cotoneaster spp., Cuppressus spp., and cherry laurel represent the dominant species and form some dense thickets in places. It should be noted that Figure 1 depicts Cuperessus spp. as coniferous trees in some areas where they form discrete features. Himalayan balsam occurs frequently along the stream corridor along

with rhododendron (TN1) both of which are listed on Schedule 9 of the Wildlife and Countryside Act 1981 (i.e. non-native invasive plant species).

Scattered Scrub

3.1.8 Bramble scrub occurs occasionally amongst introduced shrubs and patches of tall ruderal. This habitat type is not shown on Figure 1 as it does not form a distinct habitat unit of sufficient size to be mapped.

Running Water

3.1.9 The Otter Brook flows north to south through the far eastern end of the application site. The brook is approximately 2 m wide and relatively shallow, flowing over a cobble and boulder substrate. The banksides are heavily shaded by dense shrub growth and mature/semi-mature broadleaved trees (see above).

Buildings

3.1.10 Three buildings exist within the application site, including the existing dwelling house (B1), a garage (B2) and a small shed (B3). Further details of these buildings are shown in Table 2 below.

Hard Standing

3.1.11 Hard standing exists in the form of concrete driveways and pathways, the latter leading down to the Otter Brook from the existing dwelling house.

3.2 Protected and Priority Species

3.2.1 No signs of protected or priority species were recorded during the survey although the overgrown nature of the garden and the presence of the secluded Otter Brook corridor mean that species such as otter and badger may occasionally commute through the site. Mobile species such as bats are likely to forage around mature trees and shrubs within the site but none of the trees that would be removed as part of the development support suitable roosting features, while the two buildings that would be demolished (B2 and B3) provide no roost potential on account of their construction. Birds are almost certainly likely to breed within the site, especially amongst the denser areas of introduced shrub and within trees. Bird species recorded during the survey included robin, wren, blackbird, great tit and house sparrow. It is worth noting that an active fox den was recorded under B3.

Table 2 Building Roost Assessment Results

Building Ref	Description	Roost Potential
B1	Mid – late 20th century semi-detached house constructed from brick with rendered walls. The roof is pitched and clad with concrete tiles. The only obvious access point for bats appeared to be a gap near the apex on the east facing gable end. The building was not surveyed internally owing to the fact that it would be retained as part of the	Moderate

Building Ref	Description	Roost Potential
	development proposals.	
B2	B2 is a small (4 x 3 m approx) single storey structure of brick construction with rendered walls. It has a shallow pitched corrugated asbestos roof and is currently used for light storage. Access points for bats exist around the edges of the roof as well as above the timber entrance door. However, the building is subject to high internal light levels owing to the presence of a window on the eastern elevation while there are no crevice roosting opportunities.	None
B3	She measuring 2.5 x 2.5 m approx. The shed is of timber panel construction and has a pitched felt roof. The shed is in excellent condition with no access points for bats.	None

4 Discussion and Recommendations

4.1 Assessment

4.1.1 All of the habitats and plant species present within the application site are widespread and common throughout the UK and Derbyshire. It is acknowledged that hedges are a priority UK BAP habitat type and that all hedgerows with at least 80% native woody species fall under this category. The hedgerow that runs along the northern boundary of the site and adjacent driveway would be covered under this priority habitat type as they consist almost entirely of beech. However, the low levels of shrub/tree diversity present in the hedge coupled with an absence of any specialist woodland herb species, suggests that they are not ancient hedgerows or classed as important under the Hedgerow Regulations 1997. Furthermore, the hedges do not connect the site to the wider landscape which limits their ecological value. Most of the hedgerows would be retained as part of the development proposals with only a short section lost.

4.1.2 Other than breeding birds, the site is unlikely to support any protected or priority species. Taking this information into consideration, the site is assessed as being of low ecological value and the development proposals are unlikely to result in any significant ecological impacts providing Reasonable Avoidance Measures (RAMs) are implemented and best practice guidance followed (see below).

4.2 Recommendations

4.2.1 Notwithstanding the low ecological value of the site, it is possible that certain species such as badger and otter may occasionally pass through the site, especially when it is considered that the Otter Brook is likely to function as a wildlife corridor. The stream corridor would not be directly affected by the development proposals but best practice guidelines should be followed during construction (e.g. Environment Agency pollution prevention control guidelines) while no works should take place within one hour of sunset or sunrise and no steep uncovered pits or chemical containers should be left uncovered overnight.

4.2.2 Furthermore, it is recommended that potential breeding bird habitats within the application site including trees and shrubs are removed outside the breeding season which runs from March to August (inclusive). If clearance cannot be avoided during the nesting season then it is recommended that surveys should be undertaken, immediately prior to the works commencing, to ensure that there are no active nests present. If nesting birds were confirmed to be present then works would need to be postponed until young have fledged and/or nesting had been completed or alternatively, a no works zone implemented around active nests.

4.2.3 Himalayan balsam and rhododendron are both listed on Schedule 9 of the Wildlife and Countryside Act (1981 as amended), which makes it an offence to plant, or cause these species to grow, in the wild. Adoption of best practice to avoid their spread is recommended. Measures to be adopted include cleaning equipment and machinery before transportation away from the site to reduce seed dispersal. As a final point, removal of B3 should avoid the fox breeding season (February to May) when immobile fox cubs may be present underground.

4.2.4 There is an opportunity to enhance the biodiversity value of the development/site through relatively simple and inexpensive measures. For example, bat and bird boxes could be installed within the walls of new buildings and/or on retained mature trees, while native species of trees and shrubs could be included in the landscape design to provide foraging and nesting habitat. Incorporating such measures into the development would go some way to meeting UK and local Biodiversity Action Plan targets while such enhancements are in accordance with the NPPF which advises that planning decisions should aim to conserve and enhance biodiversity by applying a number of principles, including the encouragement of opportunities to incorporate biodiversity in and around developments.

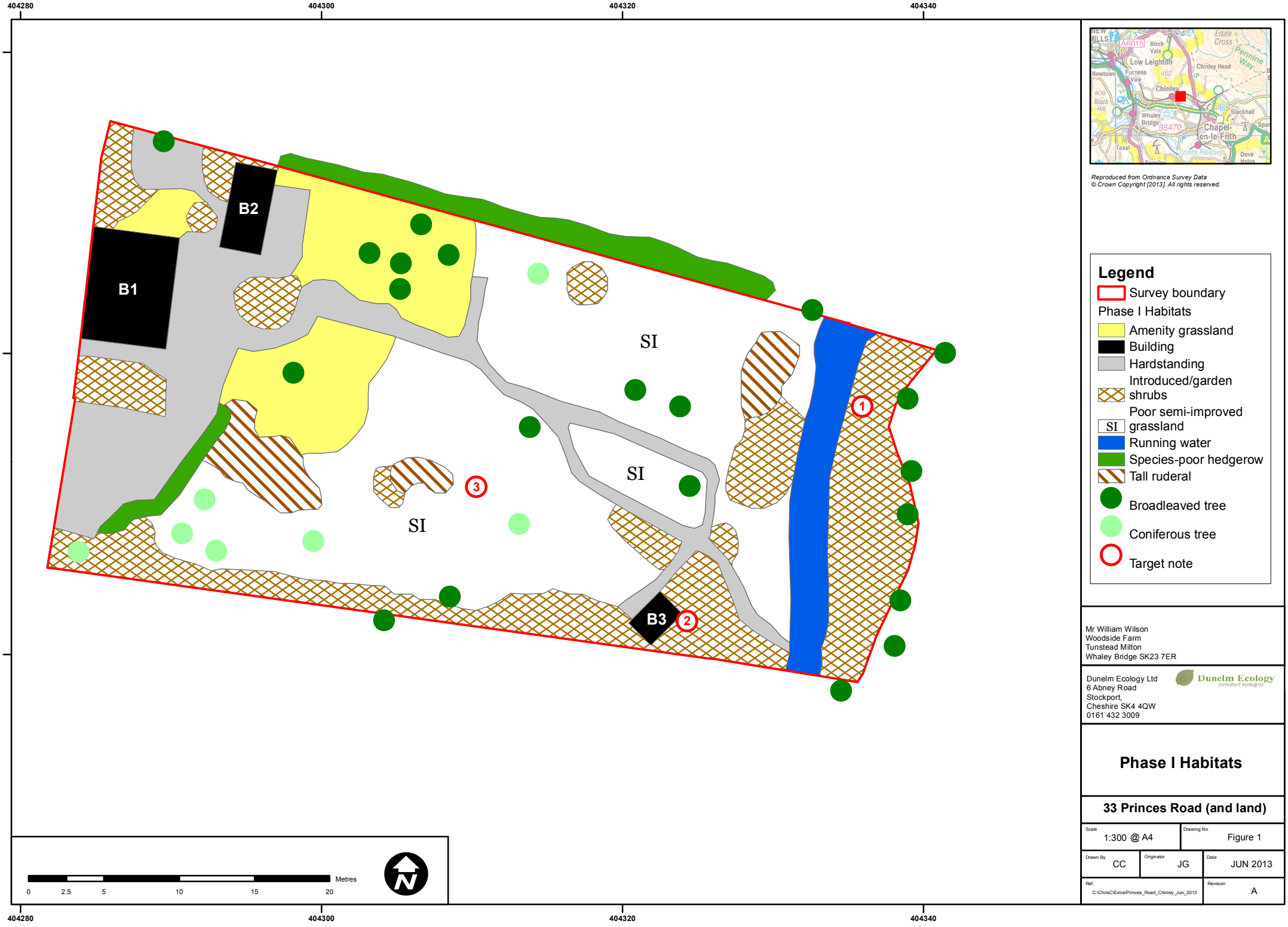
5 References

Hundt L (2012). *Bat Surveys Good Practice Guidelines*. Bat Conservation Trust, London.

Joint Nature Conservancy Council, (2003). *Handbook for Phase 1 habitat survey: A technique for environmental audit*. JNCC.

Mitchell-Jones AJ (2004). *Bat Mitigation Guidelines*. English Nature, Peterborough.

FIGURE



Reproduced from Ordnance Survey Data
© Crown Copyright [2013]. All rights reserved.

Legend

- Survey boundary
- Phase I Habitats
  - Amenity grassland
  - Building
  - Hardstanding
  - Introduced/garden shrubs
  - Poor semi-improved grassland (SI)
  - Running water
  - Species-poor hedgerow
  - Tall ruderal
- Broadleaved tree
- Coniferous tree
- Target note

Mr William Wilson
Woodside Farm
Tunstead Milton
Whaley Bridge SK23 7ER

Dunelm Ecology Ltd
6 Abney Road
Stockport,
Cheshire SK4 4QW
0161 432 3009

Phase I Habitats

33 Princes Road (and land)

Scale	Drawing No.
1:300 @ A4	Figure 1

Drawn By	Originator	Date
CC	JG	JUN 2013

Ref.	Revision
C:\Chris\C\Extra\Princes_Road_Chinley_Jun_2013	A

PLATES



Plate 1 B1



Plate 2 B2



Plate 3 B3



Plate 4 Fox den under shed



Plate 5 Otter Brook corridor



Plate 6 View of garden showing grassand, shrub and tree habitats