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Extended Phase 1 Habitat Survey

at

Land to rear of
13 Chapel Street, Glossop

Prepared by

Dr Fiona Sharpe MIEEM, Consultant Ecologist

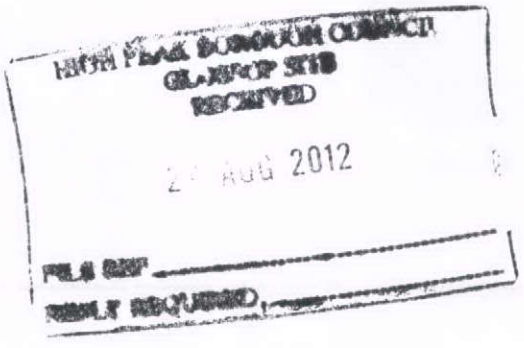
on behalf of

Scott Fitzgerald Tree Consultants Ltd

for

The Landbank

8 August 2012



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1. Summary

1.1.1. Dr Fiona Sharpe MIEEM was commissioned in July 2012 to undertake an Extended Phase 1 Habitat Survey of a proposed development site to the rear of 13 Chapel Street, Glossop.

1.1.2. This report is designed to accompany a planning application for a mixed used development inclusive of retail units, leisure units, commercial units and retirement apartments.

1.1.3. An Extended Phase 1 Habitat Survey was carried out on the 16th July 2012. This report details the findings of the survey and provides an ecological baseline of the habitats present, as well as an assessment of the likelihood of protected or otherwise notable species to be present.

1.1.4. The habitats within the site comprise ephemeral/short perennial vegetation, tall ruderal, introduced shrub (Japanese knotweed), bare ground (concrete and gravel), poor semi-improved grassland and scattered trees (predominantly broadleaved trees) and scrub (willow, bramble and saplings).

1.1.5. The poor semi-improved grassland has the most nature conservation value, particularly for insects and other invertebrates. The surroundings trees and scrub may be used by nesting birds.

1.1.6. General advice and recommendations for protection of species and biodiversity and enhancement of the site include:

- Vegetation removal outside of the bird breeding season (which generally extends from March to August). If this is not possible, then a check for nests immediately prior to removal should be carried out by a qualified ecologist. If nests are found, they should be adequately protected until breeding has finished and the nest is no longer in use.
- The elimination of stand of Japanese knotweed prior to any site works, in accordance with Environment Agency guidance and in line with relevant legislation. Eliminating Japanese knotweed can be a lengthy and expensive process, therefore it is recommended that this issue is dealt with as soon as possible in order to reduce costs.
- The retention of native broadleaved trees and scrub where possible or replacement with suitable native tree and shrub planting.
- The creation of new habitats to enhance the biodiversity value of the site. New habitats suitable for the site include native species-rich hedgerows, native broadleaved tree, shrub and flower planting and species-rich neutral grassland. Green/biodiverse brown roofs are also a good way of retaining/enhancing the biodiversity of a site as well as reducing the building footprint.
- The inclusion of bat bricks and bird bricks (for species such as house sparrow, house martin and swifts) within the building design and the placement on bird nest boxes on suitable retained trees around the site.

2. Introduction

2.1. Instructions

2.1.1. We have been instructed by The Landbank to undertake an Extended Phase 1 Habitat Survey of a parcel of land to the rear of 13 Chapel Street, Glossop to support a planning application for a mixed use development of retail units, leisure units, commercial units and retirement apartments.

2.1.2. This report details the ecological baseline of the site in order to inform where there is potential for protected, or otherwise notable, species and/or habitats.

2.2. Site description

2.2.1. The parcel of land is situated in the centre of Glossop, grid reference SK 032 939. The site is bordered to the north and east by a road and buildings, to the west by residential and business premises and to the south by the Glossop Brook and a park beyond.

2.3. Legislation and planning policy

2.3.1. Certain habitats and species, including bats, reptiles, badger *Meles meles* and nesting birds are subject to protection as laid out in the Wildlife and Countryside Act 1981 (as amended), the Conservation of Habitats and Species Regulations 2010 and the Protection of Badgers Act 1992.

2.3.2. According to the National Planning Policy Framework 2012, 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, and promote the preservation, restoration re-creation of priority habitats and the protection and recovery of priority species population. Local planning authorities should also aim to conserve and enhance biodiversity by encouraging opportunities to incorporate biodiversity in and around developments.

2.3.3. In addition, biodiversity is an important factor when considering proposed developments, in accordance with the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act 2006 states that "every public body must, in exercising its functions have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity" and Section 41 of the NERC Act required the Secretary of State to draw up a list of Habitats and Species of Principal Importance which should be used to guide decision-makers (which include local authorities) in implementing their duty under Section 40.

2.4. Personnel and quality assurance

2.4.1. The Phase 1 Habitat Survey was undertaken on 16th July 2012 by Dr Fiona Sharpe, who is an experienced ecologist, with a PhD in Ecology and Conservation and a full member of the Institute of Ecology and Environmental Management. All fieldwork is carried out in accordance with current best practice guidelines.

2.5. Aims of report

2.5.1. To undertake a desk-based study of the proposed development site in order to establish the presence of or likelihood of presence of protected species or habitats of importance;

2.5.2. To describe habitats, flora and fauna, by carrying out an Extended Phase 1 Habitat Survey of the site, with particular attention given to features that have the potential to support protected or otherwise notable species;

2.5.3. To identify the biodiversity value of the site and highlight any relevant ecological constraints to development or opportunities for nature conservation enhancement in line with relevant UK and European legislation.

3. Methods

3.1. Desk-based study

3.1.1. A desk-based study was undertaken in order to assist with the field survey and to establish the presence of protected species or habitats of importance on or within a 1km radius of the site.

3.1.2. Natural England's Nature on the Map resource (www.natureonthemap.naturalengland.org.uk) was accessed for information on UK and European protected and important sites. The following features were searched for:

- Nature reserves and country parks
- Sites of Special Scientific Interest (SSSI's)
- Biodiversity Action Plan (BAP) Priority Habitats

3.1.3. The following sources were also reviewed:

- The Derbyshire Biodiversity Action Plan (www.derbyshirebiodiversity.org.uk)
- The National Biodiversity Network (www.nbn.org.uk)
- The Multi Agency Geographic Information for the Countryside (MAGIC) (www.magic.gov.uk)
- Ordnance Survey map for ponds or waterbodies within 500m of the site.

3.2. Field study

3.2.1. The Extended Phase 1 Habitat Survey was carried out by Dr Fiona Sharpe MIEEM, Consultant Ecologist, on 16th July 2012 and involved undertaking a detailed walkover across the site. Observations of flora and fauna were noted, in addition to an assessment of the potential habitats for protected species.

3.2.2. The Extended Phase 1 Habitat Survey was conducted in accordance with the guidelines set out in the Handbook for Phase 1 Habitat Survey (JNCC 2003) and the Guidelines for Baseline Ecological Assessment (IEA 1995). The extent of each habitat was mapped (Appendix A). Target notes and photographs (Appendix B) have been included to provide an indication of the nature conservation interest and to inform the need for further survey.

3.2.3. The field survey was also conducted with respect to the information obtained from the desk study. From this it was identified that the following protected species had potential to be present on site:

- Nesting birds
- Reptiles
- Badgers

3.3. Evaluation methods

3.3.1. Habitats and species are evaluated in terms of Biodiversity Priority Habitats and Species as listed in the UK BAP and relevant Local BAPs.

3.3.2. The potential impacts of land use change on the nature conservation of the site are assessed using these criteria, where applicable, together with ecological judging regarding the likely impacts of existing habitats and species.

3.4. Survey constraints

3.4.1. The optimum survey period for Extended Phase 1 Habitat Surveys in the north of England is generally late April/early May to mid-October, although this does vary according to habitats, e.g. woodlands are best surveyed in spring, grasslands in mid-summer and heathlands in autumn. Although surveys can be conducted throughout the year, some plant and animal species that might be present may not have been evident during the survey.

4. Results

4.1. Desk-based study

4.2. Protected sites and other features

4.2.1. There are no statutory protected sites within 1km of the proposed development site.

4.2.2. There is deciduous woodland a BAP Priority habitats within 1km of the site, the closest immediately to the south of the Glossop Brook.

4.2.3. There are no ponds within 500m of the site. There is a watercourse, the Glossop Brook, which runs along the southern boundary of the site.

4.3. Field survey

4.4. Protected species

4.4.1. Habitats on site have the potential to support breeding birds.

4.4.2. Breeding birds: The scattered scrub and scattered trees around the periphery of the site provide suitable nesting habitat for the more common bird species. The following bird species were identified on or very close to the site during the habitat survey:

- great tit *Parus major*
- blue tit *Cyanistes caeruleus*
- long-tailed tit *Aegithalos caudatus*
- chiffchaff *Phylloscopus collybita*

4.4.3. Other protected species: There are no buildings on the site and there are no trees with features (such as lifted bark, cracks or holes) suitable for use by roosting bats. The vegetation on site is predominantly ephemeral/short perennial and tall ruderal vegetation. The site is no connected to any habitat beyond the site boundary that may be suitable for species such as reptiles or amphibians. There were no signs of badgers using the site (e.g. snuffles holes, pathways, latrines, foot prints). Passing otters may use the Glossop Brook but the steep stonewalls would act as a barrier to otters using the site for resting purposes.

4.5. Habitats

4.5.1. The habitats found on and close to the site have been described according to Phase 1 Habitat descriptions. The habitat map is given in Appendix A and target notes with species composition and photographs are presented in Appendix B.

4.5.2. The dominant habitats on site are poor semi-improved grassland (target note 1) tall ruderal (target notes 2 and 3), ephemeral/short perennial vegetation and

scattered trees and scrub. There are some stands of Japanese knotweed *Fallopia japonica* (target note 4) within the site boundary.

4.5.3. Poor semi-improved grassland: The semi-improved grassland comprises Yorkshire fog *Holcus lanatus* (dominant), common bent *Agrostis tenuis* (abundant), dandelion Taraxacum agg. (frequent), herb-robert *Geranium robertianum* (frequent), creeping buttercup *Ranunculus repens* (frequent), white clover *Trifolium repens* (occasional), red fescue *Festuca rubra* (frequent) and black bent *Agrostis gigantean* (abundant). Other species present include wood avens *Geum urbanum*, broadleaved dock *Rumex obtusifolius*, annual meadow-grass *Poa annua*, rough meadow grass *Poa trivialis* and ragwort *Senecio jacobea*. The semi-improved grassland in the middle of the site is slightly more species rich with the additional species of bush vetch *Vicia sepium*, field horsetail *Equisetum arvense*, self-heal *Prunella vulgaris*, bramble *Rubus fruticosus*, rose sp Rosa sp., cleaver *Galium aparine*, lady's mantle *Alchemilla vulgaris agg.*, zigzag clover *Trifolium medium*, columbine *Aquilegia vulgaris* and cocksfoot *Dactylis glomerata*. The ground beneath the grassland is very stony with lots of scattered rubble.

4.5.4. Tall ruderal: the dominant species are broadleaved dock, ragwort, field horsetail (particularly around the base and on the slope of the raised area in the middle of the site), broadleaved willowherb *Epilobium montanum* and rosebay willowherb *Chamerion angustifolium* (target note 3). Other species present include Yorkshire fog, dandelion, bramble, hedge bindweed *Calystegia sepium*, black bent, purple toadflax *Linaria purpurea*, creeping buttercup, couch *Agropyron repens*, cleavers and Japanese knotweed. Additional species present in the west of the site (target note 2) include spear thistle *Cirsium vulgare*, nettle *Urtica dioica* and black medick *Medicago lupulina*.

4.5.5. Ephemeral/short perennial: the ephemeral/short perennial vegetation is in amongst the scattered debris and rubble on site and re-colonising the areas of hardstanding. Species present include rosebay willowherb, broadleaved dock, herb-robert, Yorkshire fog, broadleaved willowherb, dandelion, self-heal, common bent, black bent slender rush *Juncus tenuis*, cocksfoot, red fescue, greater plantain *Plantago major*, creeping buttercup, perennial sow-thistle *Sonchus arvensis* and garlic mustard *Alliaria petiolata*.

4.5.6. Scattered trees and scrub: the scattered broadleaved trees within the site boundary comprise ash *Fraxinus excelsior* (semi-mature and saplings) and sycamore *Acer pseudoplatanus*. There are a couple of scattered conifers and a leylandii hedge in the north of the site. The scattered scrub comprises a mixed a native and non-native species. The native species include hawthorn *Crataegus monogyna*, hazel *Coryllus avellana* and bird cherry *Prunus padus* in the northwest corner of the site, scattered ash saplings across the site, and goat willow *Salix caprea*, broom *Cytisus scoparius*, alder *Alnus glutinosa* and bramble along the southern boundary.

4.5.7. Invasive species: there are two small stands of Japanese knotweed in the centre of the site (along the northern boundary, target note 4) and a couple of larger stands along the southern boundary of the site (target note 4).

5. Evaluation and Recommendations

5.1. Species

5.1.1. The site provides suitable habitat for nesting birds. The proposals for the development of site will result in vegetation loss, potentially affecting nesting birds, therefore all efforts should be taken to avoid any impacts on nesting birds. The site also contains Japanese knotweed, which is an invasive non-native species. It is an offence to cause Japanese knotweed to grow in the wild.

5.2. Nesting birds

5.2.1. No Schedule 1 or BAP bird species were recorded on or close to the site. The species recorded were all common species. If birds do use the site, they will most likely use the scattered scrub, brambles and trees for nesting purposes.

5.2.2. In England all birds, their nests and eggs are afforded protected under the Wildlife and Countryside Act 1981 (as amended) making it an offence to:

- Intentionally kill, injure or take any wild bird;
- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built;
- Intentionally take or destroy the egg of any wild bird.

5.3. Habitats

5.3.1. The habitats of most conservation interest within the site boundary include the broadleaved trees, native scrub and poor semi-improved grassland. Japanese knotweed is also present on site.

5.3.2. Broad-leaved trees and native scrub. There are only a few semi-mature trees on site and the native scrub is mainly around the site boundaries. These habitats may be used by nesting birds and may also provide bird foraging habitat.

5.3.3. Poor semi-improved grassland: This habitat is fairly species-poor but may provide habitat for insects and other invertebrates and foraging for birds.

5.3.4. Japanese knotweed: There are at three stands of Japanese knotweed on site (two in the north of the site and a large stand along the southern boundary). Japanese knotweed is a non-native introduced species that invades natural habitats and out-competes native plants and the animals that normally live there. Its vigorous growth can also cause damage to buildings and hard surfaces. Japanese knotweed easily spread by its high regeneration rate and fragments of rhizomes or cut stems. It is an offence to plant or cause Japanese knotweed to spread in the wild under the Wildlife and Countryside Act 1981 (as amended) and all waste containing Japanese knotweed comes under the control of Part II of the Environmental Protection Act 1990.

5.4. Recommendations

5.4.1. Vegetation removal should take place outside of the bird breeding season (which generally extends from March to August). If this is not possible, then a check for nests immediately prior to removal should be carried out by a qualified ecologist. If nests are found, they should be adequately protected until breeding has finished and the nest is no longer in use.

5.4.2. The stands of Japanese knotweed should be treated prior to any site works in accordance with Environment Agency guidance (Managing Japanese knotweed on development sites: the knotweed code of practice) and in line with relevant legislation. Eliminating Japanese knotweed can be a lengthy and expensive process, therefore it is recommended that this issue is dealt with as soon as possible in order to reduce costs.

5.4.3. The native broadleaved trees and scrub should be retained where possible or replaced with suitable native tree and shrub planting.

5.4.4. New habitats would enhance the biodiversity value of the site. New habitats suitable for the site include native species-rich hedgerows, native broadleaved tree, shrub and flower planting and species-rich neutral grassland. Green/biodiverse brown roofs are also a good way of retaining/enhancing the biodiversity of a site as well as reducing the building footprint.

5.4.5. Consideration should also be given to the inclusion of bat bricks and bird bricks (for species such as house sparrow, house martin and swifts) within the building design and the placement on bird nest boxes on suitable retained trees around the site.

6. References

IEA (1995). Guidelines for Baseline Ecological Assessment. Institute for Environmental Assessment, E & F.N. Spon, London, UK.

JNCC (2003). Handbook for Phase 1 habitat survey: A technique for environmental audit. Joint Nature Conservation Committee, Peterborough, UK.