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Ecology overview observations and Phase 1 habitat survey

Site 2, Land at Woods Mill, Glossop, Derbyshire

for

Barnes Walker Landscape Architects – their client David Fairclough

Report date 17<sup>th</sup> June 2014



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### Executive summary

The survey, carried out in May 2014, was of a site predominantly comprising demolished industrial buildings mostly removed and an earlier mill pool, now silted up and vegetated.

Reference is made to legislation and national planning guidance influencing the conservation of nature, and the Dark Peak Biodiversity Action Plan.

There are no statutory sites for nature conservation within 1km radius. There is one non-statutory Local Wildlife Site (LWS) in the locality and three 'potential' LWS present. It is not envisaged that any of these non-statutory or potential non-statutory sites will be adversely impacted upon by the development of this site at Woods Mill.

Ten habitat types were identified on the site, the most interesting of which were marshy grassland and broadleaved woodland.

Historic records for a number of protected species within 1km were received, the most significant being pipistrelle bat and brown long-eared bat. No evidence for protected species was found in the survey, although the site is used by some raptor species.

Further survey may be required by the planning authority to establish the presence/absence of bats in the buildings.

The site is generally of low value for biodiversity owing to its anthropogenic origins, relatively recent redundancy and disturbance and surrounding the urban location which limits its colonisation.

Suggestions are made for potential enhancement of the site for biodiversity, particularly land adjacent the watercourse, management of invasive species and support for particular locally important species.

## **1. Introduction**

Chris Mahon Environment (CME) was instructed to undertake a site visit to Woods Mill, Glossop, Derbyshire, and carry out a Phase 1 habitat survey, by Colin Barnes and Mathew Westwood of Barnes Walker Landscape Architects and their client, project manager David Fairclough, in order to provide ecological information on the development site prior to the commencement of planning application submission and subsequent building works. Particular reference was made to identifying any issues arising from the potential presence of bats. A survey of this nature provides a useful overview of the ecology of an area and the habitats it contains, rather than an in-depth survey of each taxa or species, although target notes are made. Interpretation and recommendations are proposed from observations recorded.

Reports are required separately for three sites at Woods Mill. This report comprises observations made at Site 2.

The observations and report are made by Chris Mahon BSc.(Hons.)(Env.Sci.) MSc.(Env.Ass.), Managing Director of Chris Mahon Environment (CME), a qualified environmental professional of over 20 years experience.

## **2. General site description**

The site was visited on Thursday 1<sup>st</sup> May 2014, between 1030 and 1500. Weather conditions were overcast with some sunny spells. Wind speed very low. Air temperatures were cool, around 10 degrees C. Altitude approximately 514m (1686ft) above sea level. An early spring survey is good for the first spring flowering plants but limits identification of later emerging vegetation.

### **Location and method**

Glossop is an old market town in the foothills of the Pennine Hills between Manchester and Sheffield. It is known as the "Gateway to the Peak District National Park". It has a grid reference SK0393 and is in the High Peak district of the county of Derbyshire.

Site 2 comprises a substantial area of demolished industrial buildings, mostly recently cleared. There is an area of vegetation arising from the infilling and colonisation of a mill pool.

Site 2 is best divided into three areas for analysis.

Area 1 comprises the area of demolished buildings

Area 2 an in-filled, overgrown mill pool

Area 3 a small area of tree planting adjacent to Shirebrook Drive and the Glossop Brook

The surveyor was met on site by the project manager and was accompanied by him to any areas which may have constituted a dangerous situation. The site is situated in an urban context but has a southern aspect which is rural facing, close to open countryside.



*Site plan showing sub-divisions of Site 2 into three areas*

### **3. Planning Legislation and Policy context**

The legal and planning policy context for biodiversity and landscape is important to the understanding of this report and its recommendations. The following are of particular relevance:

#### **European and Global:**

EC Directive on the Conservation of Habitats and Species Regulations 2010

EC Directive on the Conservation of Wild Birds (Birds Directive 1979) as amended (79/409/EEC)

Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979)

Convention on Biological Diversity (1992)

#### **UK:**

Wildlife and Countryside Act 1981 (as amended by the Countryside Rights of Way Act 2000) which helps deliver the Bern Convention and Birds Directive above. This is complemented by the Conservation of Habitats and Species Regulations 2010 which implements Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the EC Habitats Directive).

These provide statutory protection to several species mentioned in this report, including birds, bats, badgers, great crested newt and otters. Badgers are also protected by the Protection of Badgers Act 1992. It is a criminal offence to intentionally or wilfully kill or take any of these species or to disturb or destroy its habitat.

There are several recent pieces of guidance on biodiversity which are also influencing planning decisions. Among these are particularly:

The Natural Choice; Natural Environment White Paper, June 2011



England Biodiversity Strategy: securing the value of nature, 2011

Natural England Position Statement: All Landscapes Matter February 2010

Landscapes of the Future (Parliamentary Office of Science & Technology) Postnote no 380  
June 2011

National Planning Policy Framework, 27<sup>th</sup> March 2012

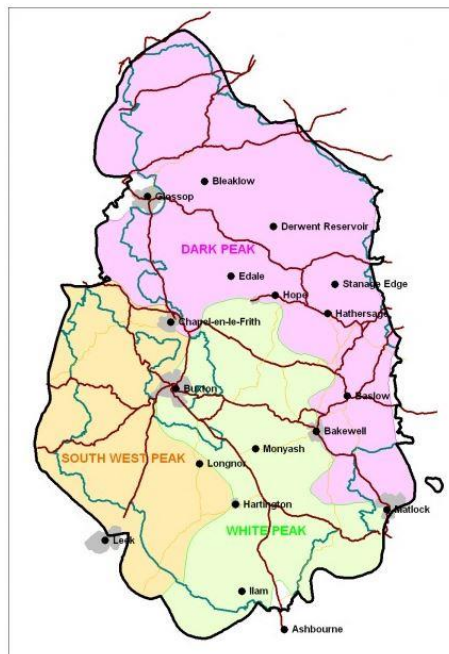
UK National Ecosystem Assessment, 2011

Making Space for Nature Review, 2010

The Economics of Ecosystems and Biodiversity (TEEB) report, 2010

There does not appear to be a biodiversity strategy for High Peak Borough Council but the council is a member of the Peak District Biodiversity Partnership which is responsible for the implementation and monitoring of the individual Habitat and Species Action Plans set out in the Local Biodiversity Action Plan (BAP) for the Peak District. The Council will assess development proposals in relation to their effects on flora, fauna and wildlife habitats.

The Peak District BAP is based largely on the three National Character Areas: the Dark Peak, White Peak and South West Peak. Each of these areas is defined by its landscape and a distinctive and characteristic mosaic of habitats and species which sets it apart from other areas of England and contributes considerably to the feeling of local distinctiveness. The BAP area therefore includes all of the Peak District National Park plus the whole of the area around Brassington/Wirksworth, Buxton and Cauldon Low/Weaver Hills; the Ipstones Ridge, Macclesfield Forest and Whaley Bridge; and Stalybridge, Hayfield and Matlock Moor. In addition to these three National Character Areas the BAP also takes in one or two adjacent areas not otherwise covered by Local Biodiversity Action Plans. These are the small area at the southern tip of the National Park around Fenny Bentley, which falls within the Needwood & South Derbyshire Claylands, and a small part of the Manchester Pennine Fringe around Glossop, up to the Derbyshire county boundary.

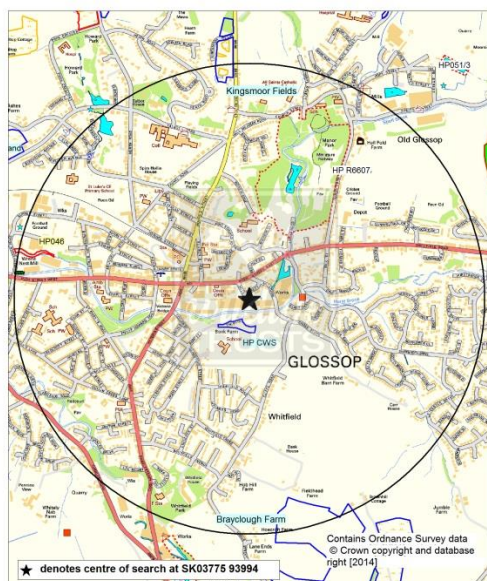


Peak District National Character Areas (Source: Peak District National Park Authority)

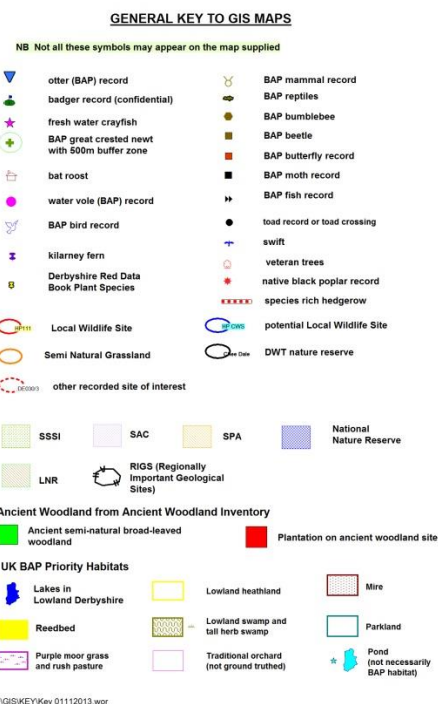
#### 4. Local Environmental Record Centre search results

Derbyshire Wildlife Trust have supplied records for Grid Reference SK03775 93994. These records indicate that within the 1km radius search area there are no statutory sites for nature conservation. The following non-statutory Wildlife Sites are present.

SITENAME	SITETYPE	GRID_REF	DETAILS
Dinting Vale Reservoirs and Brook	Local Wildlife Site	Not supplied	5.33ha Standing water
The Bank	Potential Local Wildlife Site	Not supplied	0.4117ha Semi-improved neutral grassland
Kingsmoor Fields	Potential Local Wildlife Site	Not supplied	1.5602ha Acid Grassland
Brayclough Farm	Potential Local Wildlife Site	Not supplied	13.5637ha Semi-improved neutral grassland



Produced for  
Chris Mahon Environmental  
by Derbyshire Wildlife Trust  
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#### *Distribution of biological records supplied by Derbyshire Wildlife Trust*

For reference to note, the area within the development site that is identified as a pond above, is in fact an old mill pool which these days does not usually contain standing water.

In terms of historic records for species found within the 1 km radius (see Appendix 1), the results indicate the presence of several species that require consideration, in particular are records for two bat species.

## 5. Habitat types











For ease of identification and interpretation, Site 2 has been divided into three areas. 10 habitat types from the JNCC Phase 1 habitat survey handbook codes have been identified in the survey:

- A1.1. woodland – semi natural broadleaved
- A1.2 woodland – semi natural broadleaved plantation
- A2.2 scattered scrub
- A3.1 scattered broadleaved trees
- B5 marshy grassland
- C3 tall ruderal herb
- G1 standing water
- G2 running water
- J3.6 buildings
- J4 bare ground



*See also Appendix 3 for survey map, key codes and target notes*

Phase 1 survey habitat classification, hierarchical alphanumeric reference codes and mapping colour codes

 A1.1 Woodland – semi natural broadleaved	 A1.2 Woodland - plantation	 A2.2 Scattered scrub
 A3.1 Scattered trees	 B5 Marshy grassland	 C3 Tall ruderal
 G1 Standing water	 G2 Running water	 J3.6 Buildings
 J4 Bare ground		

### Target notes

- T1 Bare ground recently cleared of industrial buildings – scattered corrugated metal panels
- T2 Peripheral built structures remaining
- T3 Water, shallow, ephemeral, wet on survey date following period of heavy rain
- T4 Watercourse containment structure reduced at this point
- T5 Ruderal herb includes bare patches
- T6 Occasional molehills in dry silt
- T7 Woodland vegetation alongside Glossop Brook



#### A1.1. woodland – semi natural broadleaved

Woodland is defined as vegetation dominated by trees more than 5m high when mature, forming a distinct, although sometimes open, canopy. A small area of broadleaved woodland exists to the north east of the site, predominantly sycamore (*Acer platanoides*), horse chestnut (*Aesculus hippocastanum*) and some hazel (*Corylus avellana*), with ivy (*Hedera helix*) and some standing dead wood.



*Sycamore on edge of wooded area*

#### A1.2 woodland – semi natural broadleaved plantation

Alongside the brook there are trees such as sycamore, alder (*Alnus glutinosa*) and ash (*Fraxinus excelsior*) which have colonised naturally. More recently some Japanese knotweed (*Fallopia japonica*) has also moved in. There is also an area parallel with Shirebrook Drive which is a mix of native hazel and alder and non-native broadleaved trees (see tree survey elsewhere in the planning application). A ground layer of nettle (*Urtus dioica*) and bramble (*Rubus fruticosus*) exists here.



*Area 3 tree planting by footpath*

#### A2.2 scattered scrub

Scrub is seral or climax vegetation dominated by locally native shrubs, usually less than 5 m tall, occasionally with a few scattered trees. The area is subject to colonisation by willow and alder and small patches of scrub vegetation were found on the edge of the site between the

marshy grassland and the bare ground cleared of buildings. Alder is also encroaching in to the marshy grassland.



Scrub and trees between Areas 1 and 2



alder encroaching marshy grassland

### A3.1 scattered broadleaved trees

Alder, sycamore and horse chestnut can all be found as individual trees outside the woodland compartment.



Old alder

### B5 marshy grassland

Perhaps the deepest part of the old mill pool, now silted up and forming an area dominated by *Juncus* rush, stinging nettle and creeping buttercup (*Ranunculus repens*) with very occasional reedmace (*Typha latifolia*) and umbeliferae. As above, woody species are colonising here as the site dries out further. The silty sediment is brought to the surface occasionally by the activity of mole (*Talpa europaeus*).



Occasional reedmace



Juncus rush community



molehill

### C3 tall ruderal herb

This category comprises stands of tall perennial or biennial dicotyledons, usually more than 25cm high. Rosebay willowherb (*Epilobium angustifolium*), stinging nettle, broad-leaved dock (*Rumex obtusifolius*) and reedmace were found with what appears to be Himalayan balsam (*Impatiens glandulifera*) emerging.



Tall ruderal herb community

### G1 standing water

On the day of the survey there was a small area of open water at the northernmost point of the site. The only habitat mapping code for this is standing water but the indications are that this is not a permanent water body, rather a temporary inundation from previously wet weather arising from the original source of water for the mill pool.



Water present on day of survey

### G2 running water

Glossop Brook is a tributary of the River Etherow with its origins in the peat moorland of the Peak District National Park, formed from the confluence of the Shelf Brook and Hurst Brook. Further downstream, the River Etherow flows into the River Goyt at Marple Bridge. Glossop Brook is quite fast flowing, in a westerly direction along the southern boundary of the proposed development site, towards Milltown. At this point of the watercourse, for the most part the water is contained within a vertical-sided stone construction, creating limited access for any of larger mammal species. However, there is a point at which the woodland meets the water (see target note T4) at a shallow bank.





*Glossop Brook in Area 3*



*shallow bank where woodland meets water*

### J3.6 buildings

Most of the buildings previously on Site 2 have been demolished and cleared from site. Parts of most of them remain around the periphery of the site and some remain entire but redundant. There appears to be little of interest to wildlife. The remaining buildings are accessible from the outside as most of the windows are broken and the top floor has significant damage to the roof making much of it exposed to the sun, wind and rain. The site is surrounded by an urban and rural landscape with many trees which provides more attractive opportunities for wildlife habitat. Nevertheless, a bat survey is recommended, given the known historic presence of bats in the area.



Remains of cleared buildings and roof of extant mill building  
set in a wooded landscape

### J4 bare ground

Most of the bare ground has been created recently and remains highly disturbed. Sheet metal is all that remains for the most part. While in a disturbed state these areas are of limited value ecologically but can serve as basking areas for reptiles and insects on suitably sunny days if left undisturbed, and of course will be attractive to pioneering plant species in due course.





Open aspect and bare ground in Area 1



Recent demolition of industrial buildings and  
metal sheet remains

## 6. Protected species

No specific evidence of legally protected species was found on site although the habitat is potentially suitable for species found in the 1 km radius record search, notably bat species (see recommendations).

No evidence of reptile species was found and only one grass snake record appears in the 1km record search, some distance away. The site is considered inappropriate for reptiles owing to its relatively recent and disturbed use, although the bare ground areas might provide some potential sites for basking on sunny days should any reptiles be able to get there.

There are no permanent standing water bodies on the site, and no records for great crested newt arose in the record search.

No evidence of badger was found on the proposed development site and no historic records for badger appear in the record search (obtainable from the local badger group). No badger setts were found and no field signs of their presence (hair, dung pits, snuffle holes) were recorded on the site.

It is not known whether otter (*Lutra lutra*) use the tributaries of the River Etherow in this area though the development site is very unlikely to provide much in the way of food sources, breeding sites or laying up areas and is most likely too disturbed by human activity to be attractive to this species. The brook is also considered to be too fast flowing and structurally inhospitable to water vole (*Arvella arvensis*).

The historic records identify red-listed song thrush (*Turdus philomelos*) and two un-named Local Biodiversity Action Plan butterfly species within 1km. It is not expected that the proposed development will have a detrimental effect on these species, particularly as the site does not provide much suitable habitat for them and there will be a requirement for demolition outside the breeding season.

## 7. Invasive species

Japanese knotweed (*Fallopia japonica*) is a notifiable non-native invasive species under the Wildlife and Countryside Act section 9. It is present along the Glossop Brook and is visible at several locations along the brook. Himalayan balsam (*Impatiens glandulifera*) may also be present in Area 2. There is a legal responsibility under the Act for the landowner to control these species of plant.



*Japanese knotweed in Area 3*

## **8. Interpretation and recommendations arising from the data gathered**

- a. The site is generally of low value for biodiversity owing to its anthropogenic origins, relatively recent redundancy and disturbance and the surrounding urban location which limits its colonisation.
- b. No statutorily protected sites are in the vicinity of the proposed development site. One non-statutory site for nature conservation protection (Local Wildlife Site) appears in the data search (Dinting Vale Reservoir and Brook) and three Potential Local Wildlife Sites are within 1km of the proposed development site. It is not envisaged that any of these non-statutory or potential wildlife sites will be impacted upon by the development of this site as they are not connected or are too far away.
- c. However, connectivity is an important component of UK ecological policy and practice in the 21<sup>st</sup> century and the local planning authority may seek opportunities for biodiversity enhancement as part of the development and planning process. There are opportunities for strengthening the ecological network in this area and although this does not involve physically connecting existing sites of nature conservation value, they will still provide some benefit to the green infrastructure of the area. The opportunities are to:
  - i. enhance the waterside along the Glossop Brook with riverside plant community interest and enhance this with improved opportunities for riverine species if appropriate.
  - ii. consider other opportunities for species conservation such as the erection of nest boxes for swift (*Apus apus*), swallow (*Hirundo rustica*) and other locally important bird species, and bat boxes if appropriate.
  - iii. consider incorporating “green roofs” in future building design plans.
- d. It will be important to identify clearly where potential development impact will take place and to provide protection for areas which should not be affected by development activities. In particular any effects from demolition and construction on the areas of aquatic interest should be safeguarded against. Though not formally protected by designation, the planning authority (and the Environment Agency) may expect the applicant to have sufficient information to determine that there will be no likely significant effect from the building works on the watercourses and their features. To address any such concerns the applicant could stipulate that the main

contractor carrying out any demolition/construction works will be required to be registered under the Considerate Constructors Scheme, an initiative managing good neighbourliness and environmental considerations on construction sites (see for more details: <http://www.ccscheme.org.uk/index.php/ccs-ltd/what-is-the-ccs/what-we-do> ). Such contractors will be expected to comply with all the relevant Environment Agency's pollution prevention guidance notes (PPGs).

- e. The habitat may be suitable for legally protected bats and there are historic records of the two most common British bat species (pipistrelle (*Pipistrellus pipistrellus*) and brown long eared bat (*Plecotus auritus*)) within 1km of the site. The local planning authority may require a specialist bat survey of the house roof space, outbuildings and mature trees.
- f. Development should only take place with due consideration to the bird breeding season.
- g. Eradication of Schedule 9 invasive species should be included in future plans for development and site management.

## 9. **Appendices**

Appendix 1 Nature Conservation Sites and Species within 1 km radius – Derbyshire Wildlife Trust

Appendix 2 Dark Peak Biodiversity Action Plan

Appendix 3 Phase 1 Habitat Map and target notes



## Appendix 1

## Appendix 2

## Appendix 3