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Ecological Assessment – Land Rear Of 102 Market Street, Chapel-En-Le-Frith, Derbyshire

Introduction

Middlewood Ecology Ltd was instructed by Mr Bywater to undertake an Ecological Assessment of an area of land to the rear of 102 Market Street, Chapel-En-Le-Frith, Derbyshire; hereafter referred to as the site.

The Ecological Assessment in particular, focused on the sites (and immediate adjacent habitats) potential to support water vole, otter, invasive floral species, and bats.

It is understood that a planning application (HPK/2021/0524) to build two detached residential dwellings on the site, with associated parking has been submitted to the High Peak Borough Council, who consulted with Derbyshire Wildlife Trust over potential impacts upon biodiversity.

Consequently, the Wildlife Trust requested that further ecological assessment of the site is undertaken to assessed whether the proposed development will have any potential impacts upon biodiversity within the site, including water vole, otter, bats, and invasive flora.

Site Location and Survey Area

The Site is located to the rear of 102 Market Street, Chapel-En-Le-Frith, Derbyshire and the central Ordnance Survey grid reference is SK06079 80922. Further details of the site's location can be seen in Figure 1 below.



Figure 1 - Location of the site (source google images)

Site Description

The site is accessed via a gated track off Market Street. Covering approx. 0.09 hectares, the site is largely comprised of scrub habitat, with several shrubs/immature trees present. The site has been subject to vegetation clearance in some areas, with brash piles and piles of chippings present.

The site is bounded to the north, east, and south by residential dwellings and/or commercial buildings, and the west by Warm Brook. The wider landscape surrounding the site is dominated by the town of Chapel-En-Le-Frith, Derbyshire.

Refer to the end of this report for photographs.

Aims of the survey

The aim of the assessment is to:

- ascertain if the site and/or adjacent Warm Brook has the potential to support water vole and/or otter;
- ascertain whether the site has potential to support bats;
- ascertain if any invasive floral species are present within the site; and
- recommend any further actions necessary, as a result of the survey findings.

Methodology

The survey was completed on the 20 April 2022 by two suitably qualified Ecologists.

The section of Warm Brook which lies adjacent to the western site boundary, and a 50-80m stretch both upstream and downstream of the site was manually searched for any signs of water vole and otter. This included identification of feeding remains, burrows and holts, latrines and holts, prints, and/or runs. The survey was undertaken in accordance with current water vole and otter survey guidelines.

Any invasive floral species identified along the brook or within the site was identified.

The site and adjacent habitats were assessed for their potential to support roosting bats. Any buildings or trees within close proximity to the site were included within this assessment. The habitats within the site were also assessed for their potential to support foraging and commuting bats. This assessment was undertaken in accordance with current bat survey guidelines.

Results and Recommendations

Warm Brook

The section of Warm Brook included within the survey area is typical of an urban watercourse.

Litter and other forms of debris were located throughout the survey stretch, including a large refuse bin, a mattress and a large advertising sign. Large amounts of brick and other building material were also identified within the channel.

The brook was approx. 1.5-2m in width, with a series of small shallow riffles and deeper pool sequences repeated along its course. The brook flowed from south to north and was culverted below roads to the south and north of the site.

No aquatic vegetation was present within the channel and the marginal zone was largely bare clay and sections of collapses or deposited brick.

Both banks of the brook are vertical to an approximate height of 0.5-1m. The eastern bank then levelled off for several meters before rising again several meters in a steep gradient. The western brook maintained a steep gradient and was approximately 8m in height.

The eastern bank (within the site) is largely comprised of scrub. The site has recently been managed with some scrub and small shrub removal completed. Bramble is the dominant species, with bittercress, common hogweed, rosebay willow herb, spear thistle and single immature goat willow, nettle, woundwort, common cleavers, broadleaved dock, colts foot,

cow parsley, meadowsweet, meadow buttercup, cotoneaster spp.,
ragwort and ivy all identified.

The western bank immediately adjacent to the site is dominated by several semi-mature crack willows and dense patches of bramble. Several floral species were identified within the more open sections of the bank including lesser celandine, common hogweed, Japanese knotweed (see below), meadowsweet, snowberry, bistort, few-flowered lee (see below), coltsfoot and rosebay willow herb.

Water Vole

During the search of the Warm Brook, no evidence to suggest the presence of water vole was identified. The search focussed on the stretch of brook adjacent to the site and 50-80m both upstream and downstream.

The section of Warm Brook included within the survey is considered sub-optimal for water vole.

As a result of the survey, water voles are not considered to be present within the survey area of Warm Brook. Therefore, the proposed development is not considered to result in adverse impacts upon water vole.

Otter

No evidence of otter (including otter holts or couches) was identified during the survey. However, it is possible that otter may utilise Warm Brook as a navigation corridor when moving throughout the landscape within their large territories.

It is understood that a 7m buffer will be installed along the eastern bank of Warm Brook, separating the development from the watercourse. This will therefore maintain a riparian corridor throughout the site and will offer screen from the development and a secure passage for otter, should they utilise the brook for navigation.

As a result, the proposed development is not considered to result in adverse impacts upon otter.

Bats

No potential bat roosting features were identified on site.

The habitats present on site have the potential to support a low number of foraging bats. Warm Brook to the west of the site has the potential to act as a navigation corridor for bats.

However, due to the small size of the site, the retention of the brook and the creation of a 7m buffer along the eastern banks of the brook, the proposed development is unlikely to impact upon any bat movement along the brook, or significantly impact upon foraging habitat.

Invasive Flora

No invasive floral species were identified within the site itself.

However, a small stand (approx. 2m x 2m) of Japanese Knotweed *Fallopia japonica* was identified on the western bank of Warm Brook, opposite the northwest corner of the site.

Approx. 15m downstream of the site, an area of few-flowered leek *Allium paradoxum* was identified on both banks of the brook. No evidence of this species was identified within the site, however.

Japanese knotweed and few-flowered leek are both listed as invasive floral species in Schedule 9 of the Wildlife and Countryside Act (1981). These species are considered to be a threat to native species of flora and habitats and is it therefore, an offence to intentionally let them grow in the wild.

However, the above species are not found within the site itself. The proposed works are unlikely to impact upon the stand of Japanese knotweed located on the opposite side of Warm Brook, and the few-flowered leek is located downstream of the site and therefore, unlikely to be disturbed by the proposed works. Consequently, invasive species of flora are not considered to be a constraint to the proposed development.

Incidental Records

During the survey, a number of bullheads *Cottus gobio* were observed within Warm Brook.

A dipper *Cinclus cinclus* was also observed flying over the brook.

Other Measures

It is recommended that a sensitive lighting scheme is designed and installed throughout the proposed development to reduce light spill along the Warm Brook. The brook has the potential to support both navigating and foraging otter and bats and therefore, limiting the amount of light fall on the brook is recommended both during construction and post construction. The scheme should be designed to ensure that the section of xx brook to the west of the site is not exposed to any increased light levels.

Recommendations

As a result of the above survey, no further survey effort in relation to water vole, otter, bats, or invasive flora is recommended.

The scrub habitat within the site, however, has the potential to support nesting birds, particularly song bird species such as robin, wren and blackbird. It is therefore recommended that should any suitable habitat be removed during the nesting bird season (1st March to 31 August), a check for any nesting birds is first undertaken by a suitable qualified Ecologist.

Photographs



Photograph 1 – Warm Brook with site to left. Showing lack of aquatic vegetation and debris within channel.



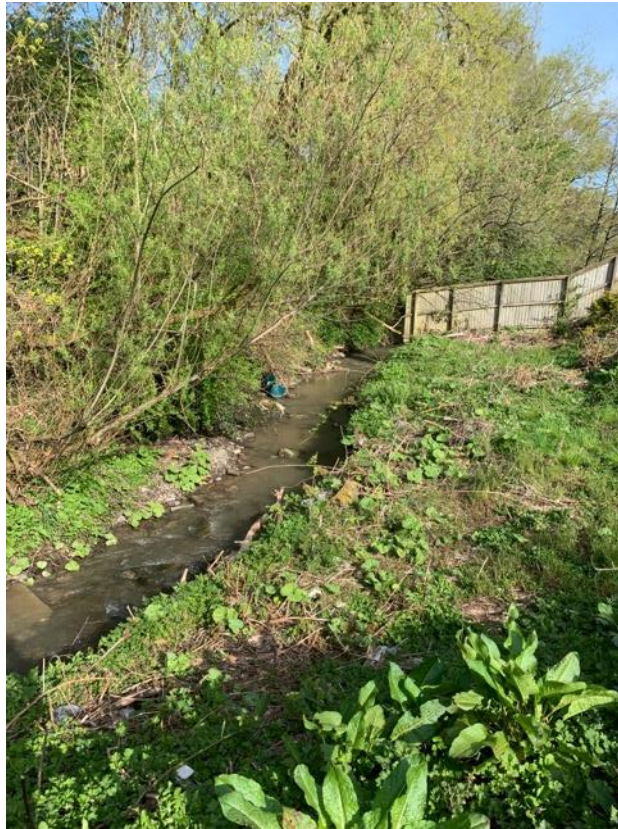
Photograph 2 – Stand of Japanese knotweed on western bank of Warm Brook facing site.



Photograph 3 – Warm Brook looking downstream below site.



Photograph 4 – culvert further downstream of site.



Photograph 5 – Warm Brook and eastern bank which falls into the site.



Photograph 6 – view of site looking across and down to Brook.



Photograph 7 – view of site looking towards eastern boundary and access point off Market Street.