

WILDLIFE & HABITAT MANAGEMENT PLAN

Former Huskissons Garage

Subject / Land Information

Site Address: Former Huskissons Garage, Chester Road, Lavister, Wrexham

Authority: Wrexham County Borough Council

ECOLOGICAL BASELINE – PRE-DEVELOPMENT

Prior to the residential development the site supported buildings, including a residential cottage and adjoining commercial buildings associated with the former Huskissons Garage. To the front of the site and open to Chester Road, the land consisted of a hard standing forecourt while immediately to the rear of the buildings were domestic gardens that had become overgrown since the property had become vacant with a small area of woodland / copse of mature trees. Also to the rear of the property was Lavister Brook, a small stream that runs through the centre of the site from south to north. The brook provided a divide between what would have been the more formal managed gardens closest to the buildings and the extended garden area supporting mature trees. This extended area could be accessed by both concrete and wooden footbridges over the brook.

HABITATS OF SIGNIFICANCE

Habitats of Principal Importance

The key habitats within the site were identified as the small area of woodland / copse supporting mature trees and Lavister Brook. These habitats were identified using a combination of field surveys and review of information on local priority habitats in the Wrexham Biodiversity Action Plan.

Woodland / copse of mature trees

The woodland / copse comprised mature standard broad-leaved trees including ash *Fraxinus excelsior*, sycamore *Acer pseudoplatanus*, beech *Fagus sylvatica*, copper beech *Fagus sylvatica purpurea*, and oak *Quercus* sp. This area was subject to some historical management with some trees being felled to ground level (stumps remaining); this area also supported a brick outbuilding and other debris. All trees on site to the west of the Lavister Brook are protected by a Tree Preservation Order (TPO). The ground flora was limited to the occasional ruderal species and tree saplings.

Streams, other natural waterways and riparian areas

Lavister Brook flows through the centre of the site from south to north. The channel was narrow (approximately 1m wide) with shallow, slow flowing water. A dry side channel branched off from the main watercourse to the west. The banks of the watercourse lacked any significant vegetation cover.

CONSERVATION AND MANAGEMENT PRACTICES

Management Objectives

Post development, the area of the site incorporating Lavister Brook and all land to the west of the channel (i.e. the area containing the woodland / copse of mature trees) will be maintained as wildlife habitat (boundary as detailed the Landscape Layout, Drawing No. M2159.01B). Management practices have been proposed that will enhance and safeguard the key habitats. Further ecological enhancement through the creation of a woodland wildflower area and the incorporation of wildlife features such as nest and roost provision is proposed for the benefit of local biodiversity.

The standard mature trees will be protected and any tree works would only be undertaken for health and safety purposes. The trees previously cut back to ground level will be managed under a coppice regime and ground flora around these trees will be enhanced through the creation of a wildflower meadow to provide interest from both a visual perspective and also a wildlife feature.

Lavister Brook will be protected during and post development. The ditch will be enhanced as a resource for wildlife and as a habitat corridor.

The management of the woodland and trees, wildflower area and the management of aquatic habitats are detailed separately below.

Woodland / Tree Management

The mature trees along the west boundary of the site will be retained and managed in accordance with the Tree Preservation Order (TPO). The TPO prevents the felling, lopping, topping, uprooting or otherwise wilful damaging of these trees without the permissions of the local planning authority (Wrexham County Borough Council). An application to undertake any tree works would need to be made to the Local Authority and consent would only be granted if the authority is satisfied that the works are appropriate arboricultural or silvicultural management.

The tree stumps that remain on land to the west of Lavister Brook following the historic management works are covered under the TPO and the same restrictions to tree works apply. The tree stumps should be left grow naturally; however it is proposed that these trees are subject to systematic cuts such as those employed under traditional coppice managed woodland, on a 7 to 10 year cycle (timing between cuts may vary depending on growth rate). Tree works would need to be approved by the Local Authority prior to works commencing.

This type of management will allow light to reach the ground, encourage a diverse ground flora to develop and prevent shading of Lavister Brook. Standing and fallen deadwood to the rear of the woodland should be left on site (where safe) to provide habitat for invertebrates, amphibians, small mammals as well as birds and bats.

The understory of scrub vegetation such as brambles should be retained particularly along the site boundaries, scrub vegetation provides shelter and a food source for many animals and their flowers are a nectar source for insects, especially butterflies. Some management will be required to prevent encroachment within the wildflower meadow area.

Further tree planting is proposed under the landscape scheme (detailed in Drawing No M2159.01B); this will include apple *Malus* sp. hazel *Corylus avellana*, guelder rose *Viburnum opulus* and field maple *Acer campestre*.

Wildflower Area (Creation and Management)

Initial Ground Preparations

Land to the west of Lavister Brook was subject to clearance as part of the initial stages of the development; this included the removal of a redundant brick building (outbuilding to the rear of the cottage), removal of debris and rubbish. The retention of scrub vegetation such as brambles and nettles along the site boundaries provides shelter and a food source for many animals and their flowers are a nectar source for insects, such as butterflies.

The ground within the area that was recently cleared and outlined for the creation of a wildflower area will be prepared for the sowing of the seed mix. It is not expected that the soil in this part of the site would be exceptionally fertile and therefore stripping of the top layer is not considered necessary. However, the ground should be cleared (e.g. remove wood chippings etc.) leaving bare earth. Any weeds and / or grasses growing in the proposed meadow area should be eradicated ensuring both the exposed above ground plant and the root sections are removed. The planting area should be left for six weeks for any residual weeds to germinate; the planting area should then be cleared again ensuring the roots are also removed. The earth should then be raked and firmed to create a seed bed.

All ground preparation works shall be carried out by hand and there shall be no access by plant or machinery (including rotovators) into the area of land to the west of Lavister Brook.

Sowing

Once the ground is prepared a wildflower seed mix suitable for woodlands (EW1F seed mix) will be sown. Wildflower seed mixes provide native species offering a valuable resource for insects and other animals. The seeds should be sown following seed mix guidance in autumn / spring. Immediately after sowing, the surface can be lightly raked and firmed.

Management

In the first year following sowing no cut should take place. Selective removal of invasive weeds is all that is required. Starting in year two, the wildflower area should be managed with a single summer cut (see management schedule).

Scrub and ruderal vegetation (e.g. bramble, nettle, fern, ivy or other weed species that would be undesirable within the wildflower area) should be cleared where it is threatening to shade out more interesting species within the newly created wildflower area. Scrub should also not be allowed to shade Lavister Brook. Management of scrub vegetation should be undertaken annually or as a minimum on a two year cycle to prevent such encroachment. Cutting of scrub vegetation will be undertaken outside the main breeding bird season (March to August inclusive).

Aquatic Habitats

Initial Works

Lavister Brook and its banks should be cleared of all debris including cut branches and other remnants resulting from the historic tree works. The brook will be fenced off and protected during all construction works to prevent encroachment and pollution from development works.

Management

Only limited management is expected for the brook. The brook should be monitored to assess colonisation by vegetation and any accumulation of sediment or debris. Routine management will include removal of debris and rubbish.

Overly vigorous or invasive plant species may need to be cutback or removed from the watercourse (invasive species as listed on Schedule 9 of the Wildlife and Countryside Act 1981 should be managed using appropriate methods (if in doubt seek expert advice)). Vegetation should be thinned rather than removed unless of a notable invasive species. Aquatic vegetation management is best undertaken later in the year between September to November. Removed vegetation should be hand sorted to ensure no animals are caught up in the vegetation.

Protection

A hedgerow will be planted along the eastern margin (property side) of Lavister Brook (see habitat enhancement below), this will provide a visual and physical barrier between the gardens to the rear of the residential properties and the watercourse.

Wildlife Enhancement

Bird and bat boxes

Bird nest / bat roost boxes will be installed within the woodland to the west of Lavister Brook to provide additional habitat and encourage breeding birds and roosting bats. These will be situated on the mature trees along the western boundary of the site. It is proposed that five bird nest boxes (suitable for a variety of common garden / woodland species) and six bat boxes (three boxes on two trees facing different directions) be positioned on site.

Hedgerow planting & Management

Hedgerows will be planted along the margins of the development (detailed in Drawing No M2159.01B); along the eastern margin (property side) of Lavister Brook a mixed species native hedgerow will be planted consisting of hawthorn *Crataegus monogyna* (75%), blackthorn *Prunus spinosa* (15%) and holly *Ilex aquifolium* (10%). This hedgerow will provide food and shelter for birds and mammals and an enhanced habitat corridor. The hedgerow will be planted in double staggered rows of 7 plants per linear metre.

The front of the development along Chester Road a beech hedgerow will be planted; this hedgerow will be planted to the above specification, double staggered rows of 7 plants per linear metre.

To the northern and southern boundaries a hedgerow comprising of holly will be planted, these hedgerows will be planted as a single row at 0.5m centres.

Hedgerows will be planted between November and April, earlier planting (prior to January) allows more time for the roots to establish before spring. However, where a hedgerow is to be planted on clay based soils, planting later in the season can be beneficial as this minimises the risk of root damage resulting from frozen or water logged conditions.

In years one to three, light trimming of hedgerows will encourage a dense growth. After this period it is recommended that the hedgerows should be maintained annually to the desired height, with cutting undertaken in late January or February

Maintenance Schedule

Initial management works

The following table (Table 1) provides details of initial management and habitat enhancement works, commencing summer 2012 with completion by spring 2013.

Management Activity	Jun 12	July 12	Aug 12	Sept 12	Oct 12	Nov 12	Dec 12	Jan 13	Feb 13	Mar 13	April 13	May 13
Year 1												
Clearance of Lavister Brook of all cut branches and other remnants resulting from initial tree works.	✓											
Initial ground preparation of wildflower area (clearance of chippings and weeds etc.)					✓							
Final preparation of wildflower area (removal of residual weeds) and sowing of seed mix.								✓	✓	✓		
Hedgerow planting along the eastern margin of Lavister Brook and tree planting within land west of the brook.						✓	✓	✓				
Installation of bird nest and bat roost boxes within the area of mature trees to western site boundary								✓				

Table 1. Initial management and habitat creation to be undertaken during and post construction (commencing summer / autumn 2012 (Year1)).

Management thereafter

- Wildflower Area (annual cuts):
 - July - cut to 4-7cm and remove clipping.
- Hedgerows
 - January/February – cut to desired height.
- Scrub vegetation
 - Scrub within meadow area and Lavister Brook controlled on an annual or two year basis (avoiding the months March to August inclusive).
- Woodland / trees
 - All mature boundary trees to be protected under TPO.
 - Trees subject to historic management works (identified as stumps) to be coppiced on an approximate 7-10 year cycle (subject to approval by Wrexham Borough Council).

MANAGEMENT RESPONSIBILITIES & RESTRICTIONS

Although the nature conservation area will be sub-divided into three separate sections, each section corresponding with one of the residential properties, the nature conservation area will be managed as a single site.

Management Responsibilities

- There will be a collective responsibility for ensuring that the habitat management proposed is undertaken in accordance with this management plan. Each home owner will share a joint and equal responsibility for ensuring that management across the whole nature conservation area (land west of Lavister Brook) is completed and that restrictions (detailed below) are adhered to.

Restrictions

- Bats and bat roosts are protected by law; no bat box should be opened, moved or disturbed by any householder at any time.
- Nesting birds are protected by law; no bird box should be opened, moved or disturbed by any householder between the months of March to August inclusive;
- All trees, including existing trees, coppiced trees, seedlings that develop naturally within the boundary of the protected woodland and trees planted in compliance with the approved landscape scheme, are protected by a TPO and no works should take place without seeking relevant permissions from Wrexham County Borough Council.