KJ Ecology Ltd

Biodiversity Management Plan
for
Whaplate Farm, Messingham.

February 2025

Client :
Jackson and Lacey Property Ltd,
92a, Arundel Street,
Sheffield,
S1 4QT.

Tel.
e-mail

Prepared by :
Kevin Johnson BSc PgD PGCE MCIEEM,
KJ Ecology Ltd,
17, The Meadow,
Caistor,
Lincs,
LN7 6XD.

Tel. 07807 655237
e-mail kevin@kjecology.co.uk

This report is for the sole use of the client (Jackson and Lacey Property Ltd) and its' reproduction or use by anyone else is forbidden unless written consent is given by KJ Ecology Ltd. Any use of this report by an unauthorised third party is at their own risk and KJ Ecology Ltd accepts no liability for any loss resulting from errors, omissions or misrepresentation made by others. Any findings, opinions or recommendations stated in this report are based on conditions as they existed at the time KJ Ecology Ltd undertook the work on the 24th May 2023. Nothing in this report constitutes a legal opinion.

Document Control Sheet

Version	Report Information	Name	Date
1.0	Written	Kevin Johnson	5th February 2025
	Approved	Bill Meek	6th February 2025
	Issued	Kevin Johnson	6th February 2025

Contents

1 Introduction

1.1 Terms of Instruction

Kate Kelly of Kelly and MacPhearson Architects on behalf of JG Green and Sons have gained a hybrid Planning Permission (PA/2023/1583) for 'full planning permission to partially demolish, rebuild and convert existing farm buildings to form 3 new dwellings with new access, and outline planning permission to erect 4 new dwellings with new access (access, appearance, landscaping, layout and scale reserved for subsequent consideration) at Whaplate Farm, West View, Messingham, DN17 3PF' but with conditions. Jackson and Lacey Property Ltd have acquired this part of the property and to fulfil Condition 19 of planning permission PA/2023/1583, Alice Lacey of Jackson and Lacey Property Ltd commissioned Kevin Johnson of KJ Ecology Ltd to write a Biodiversity Management Plan on the 16th December 2024

Condition 19 states that 'Within three months of the commencement of development, the applicant, or their successor in title, shall submit a biodiversity management plan to the local planning authority for approval in writing. The plan shall include, but not be limited to:

(a) Details of bat roosting features to be installed;
(b) Details of nesting sites to be installed to support a variety of farmland birds;
(c) Restrictions on lighting to avoid impacts on bat roosts, bat foraging areas, bird nesting sites and sensitive habitats;
(d) Prescriptions for the planting and aftercare of native trees and mixed native hedgerows of high biodiversity value;
(e) Prescriptions for the creation and ongoing management of at least 0.53 hectares of species-rich and structurally varied neutral grassland;
(f) Details to confirm that the measures proposed will provide a measurable net gain in biodiversity value;
(g) Proposed timings for the above works in relation to the completion of the road widening works on West View and subsequent conversion of the barns.

Reason
To conserve and enhance biodiversity in accordance with policies CS5 and CS17 of the North Lincolnshire Core Strategy.

1.2 Site Location

The proposed development site is on the Western side of the village of Messingham and is situated off West View at Grid Ref SE 8899 0429, as shown in Map 1 (Appendix 1).

1.3 Report Limitations

This report is for the sole use of the client and its' reproduction or use by anyone else is forbidden unless written consent is given by the author.

1.4 Background to KJ Ecology Ltd

On the 16th December 2024 KJ Ecology Ltd was appointed to write a Biodiversity Management Plan for Whaplate Farm, West View, Messingham. KJ Ecology Ltd is an independent Ecological Consultancy run by Kevin Johnson BSc Pgd PGCE MCIEEM (Member of the Charted Institute of Ecology and Environmental Management) and has several years of experience in environmental consultancy work. This work has ranged from working on the rail, roads, airports, house building projects, barn conversions and pipeline work. Kevin Johnson was initially an Ecology and Environmental Lecturer at various colleges and taught students how to carryout surveys and about the environment. Kevin Johnson then went on to work for a number of ecological consultancies such as Penny Anderson Associates, which is one of the original environmental consultancy companies and is well respected.

2 Biodiversity Management Plan

2.1 Bats

Summer bat roosts, especially maternity roosts, need between six and ten hours of sunlight a day to warm the roost, so a Southerly or Westerly aspect is required. Some bats require cooler temperatures (lone males) so need different aspects – more Northerly. Bats need clear unobstructed airspace in front of the roosting site and away from lights. According to BCT (Bat Conservation Trust) they need to be at least 4m above ground level and close to trees and hedges where bats feed. The bat boxes also need to be placed where bat droppings and urine stains will not be a nuisance to the residents of the dwelling.

Condition 19(a) requires bat roosting features to be installed. It is proposed to use four brick bat boxes such as Ibstock or similar. One on the North side of the double barn, two South facing and one on the East side of the double barn as shown in Figure 1, Appendix 2. Examples are shown in Appendix 3.

2.2 Birds

According to the RSPB the following needs to be considered when siting a nest box:

- Boxes for Tits, Sparrows or Starlings (*Sturnus vulgaris*) should be fixed two to four metres up a tree or a wall;
- Unless there are trees or buildings which shade the box during the day, face the box between North and East, thus avoiding strong sunlight and the wettest winds;
- Make sure that the birds have a clear flight path to the nest without any clutter directly in front of the entrance. Tilt the box forward slightly so that any driving rain will hit the roof and bounce clear;
- House Sparrows (*Passer domesticus*) and Starlings will readily use nest boxes placed high up under the eaves. Since these birds nest in loose colonies, two or three can be sited spaced out on the same

side of the house. Keep these away from areas where House Martins (*Delichon urbicum*) normally nest;

- Two boxes close together may be occupied by the same species if they are at the edge of adjoining territories and there is plenty of natural food. While this readily happens in the countryside, it is rare in gardens, where you normally can only expect one nesting pair of any one species. The exceptions to this are House and Tree Sparrows (*Passer montanus*) and House Martins, which are colonial nesters. By putting up different boxes, several species can be attracted.

Condition 19(b) requires a variety of nesting sites to support farmland birds to be installed. To comply with this requirement a Sparrow terrace, a Blue Tit (*Cyanistes caeruleus*) style box, a Wren (*Troglodytes troglodytes*) style nest and a Blackbird (*Turdus merula*) style nest will be placed around the site on buildings, the tree and in the hedge as shown in Figure 1, Appendix 2, with the examples shown in Appendix 3.

2.3 Lighting

Using BCT guidelines on bats and lighting, it is suggested that all lights are downward facing and only highlight the desired area (not the trees or nest/roosting sites). The lights should be;

a) Of narrow spectrum so as to lower the range of species affected by the lighting
b) Use light sources that emit minimal ultra-violet light;
c) Lights should peak higher than 550nm;
d) Avoid white and blue wavelengths of the light spectrum to reduce insect attraction and where white light sources are required in order to manage the blue short wave length content they should be of a warm / neutral colour temperature <2,700 kelvin;
e) Switch lights off in some areas when not required.

2.4 Tree and hedgerow planting

The new tree plants and hedge plants should be bought from local suppliers such as British Hardwood Tree Nursery – Examples listed in Appendix 4. The bare roots need planting in the Winter period (December to February) when the plants are dormant. The plants will need a biodegradable mulch mat around them as well as a biodegradable guard.

A stake will be inserted next to each tree at a 45º angle and tied with a flexible tree tie. A biodegradable tree guard will then be added. The trees will then be watered weekly or daily in very hot and dry conditions for the first year until they establish or sometimes two years depending upon if it has been a dry Summer the year before. The stake and tree tie need checking regularly and the tie needs loosening as the truck expands. The stake should be kept in for at least three years before the stake and tree tie are removed. By this

time the tree should be firmly rooted in. If a tree dies then it will be replaced on a like for like basis. Any diseased branches will be pruned out.

The hedge plants will need regular watering in the first year until they become established. When established the hedges can be trimmed in February time to allow the birds to have the berries. The hedges will be inspected yearly for the first 5 years to ensure establishment, then every 5 years after that. If there is more than 10% of plants not establishing, then the hedge plants will be replaced for a like for like basis and watered in the first year to make sure they establish.

2.5 Wildflower Meadow

Under Condition 2, the approved plan - 625.11 Rev A – Location Plan – Hybrid Application, there is no 0.53ha of neutral grassland. The only grassland area covers 0.0475ha and is for dwelling number four. Any deficit in the Biodiversity Net Gain calculations will result in a contribution to an approved organisation to create and maintain a species-rich and structurally varied neutral grassland.

2.6 Biodiversity Net Gain

The results can be seen in the accompanying Excel spreadsheet – Whaplate Fm Messingham - Metric Calc. The site was taken to have a strategic significance of 'Area/compensation not in local strategy/ no local strategy'. None of the habitats are irreplaceable. As Condition 19(f) requires a measurable net gain in biodiversity value, then the metric was set at 1% net gain. The assessment of the habitats and hedgerows can be seen in the associated spreadsheet - Whaplate Fm Messingham - Cond Assess Sheets.

The initial baseline gave 0.56 habitat units and the new scheme will create 0.19 habitat units. This is a -0.37 habitat unit loss according to the Biometric or -65.83% net loss. The original hedgerows gave 0.65 hedgerow units, while the new plans will create 0.81 hedgerow units. This is a 0.16 hedgerow unit gain or 24.51% net gain. This means that the plans have reached the required 10% net gain in hedgerow units but not the habitat units. To reach the required units the required 0.38 habitat units should be bought from an organisation such as Lincolnshire Wildlife Trust's Green Investment in Greater Lincolnshire scheme or the Environment Bank.

2.7 Timings

The bird and bat boxes will be added during the construction phase, as will the lighting. In the first Winter after the roads and buildings have been constructed, the hedges and trees will be planted.

3 References

Bat Conservation Trust and Institution of Lighting Professionals (2023) Bats and artificial lighting at night – Guidance Note 08/23, Rugby, ILP

Bat Conservation Trust (2012) Bats and Buildings, London, BCT

Natural England (2024) Statutory Biodiversity Metric Calculation Tool - macro-enabled, [Online], Natural England. Available at https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides [accessed 25th July 2024]

Natural England (2024) The Statutory Biodiversity Metric - Technical Annex 1 - Condition Assessment Sheets and Methodology, [Online], Natural England. Available at: https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides [accessed 25th July 2024]

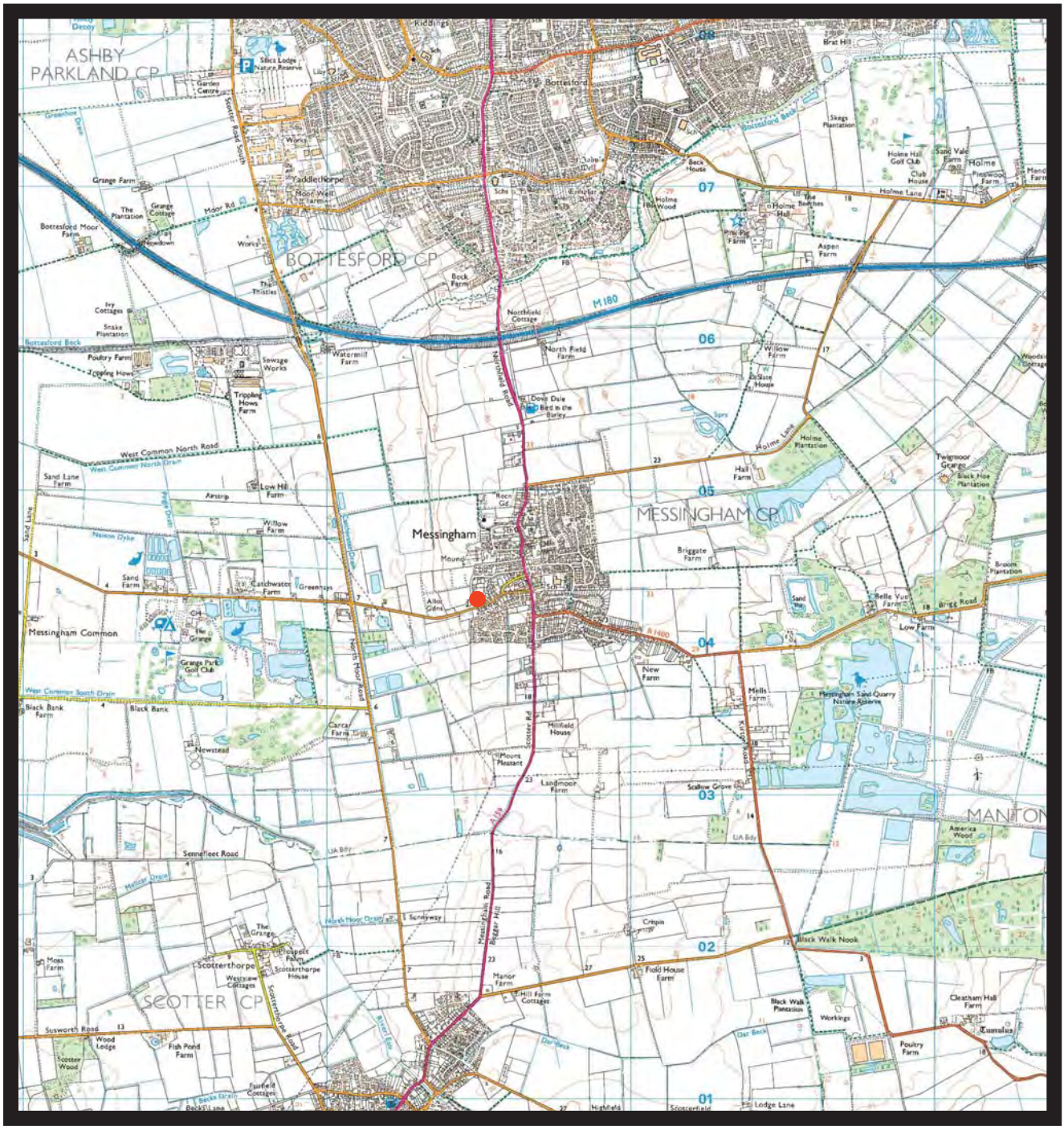
Ordnance Survey (2023) OSmap, [Online] Ordnance Survey. Available at: https://getamap.ordnancesurvey.co.uk [accessed 5th August 2023]

RSPB (2021) Making and placing a bird box, [Online], RSPB, Available at: https://www.rspb.org.uk/birds-and-wildlife/advice/how-you-can-help-birds/nestboxes/nestboxes-for-small-birds/making-and-placing-a-bird-box [accessed 18th April 2021]

Appendix 1

Map

Map 1: Location map of Whaplate Farm, Messingham.



0 0.5 1km

Site Plan 1:40,000

Legend

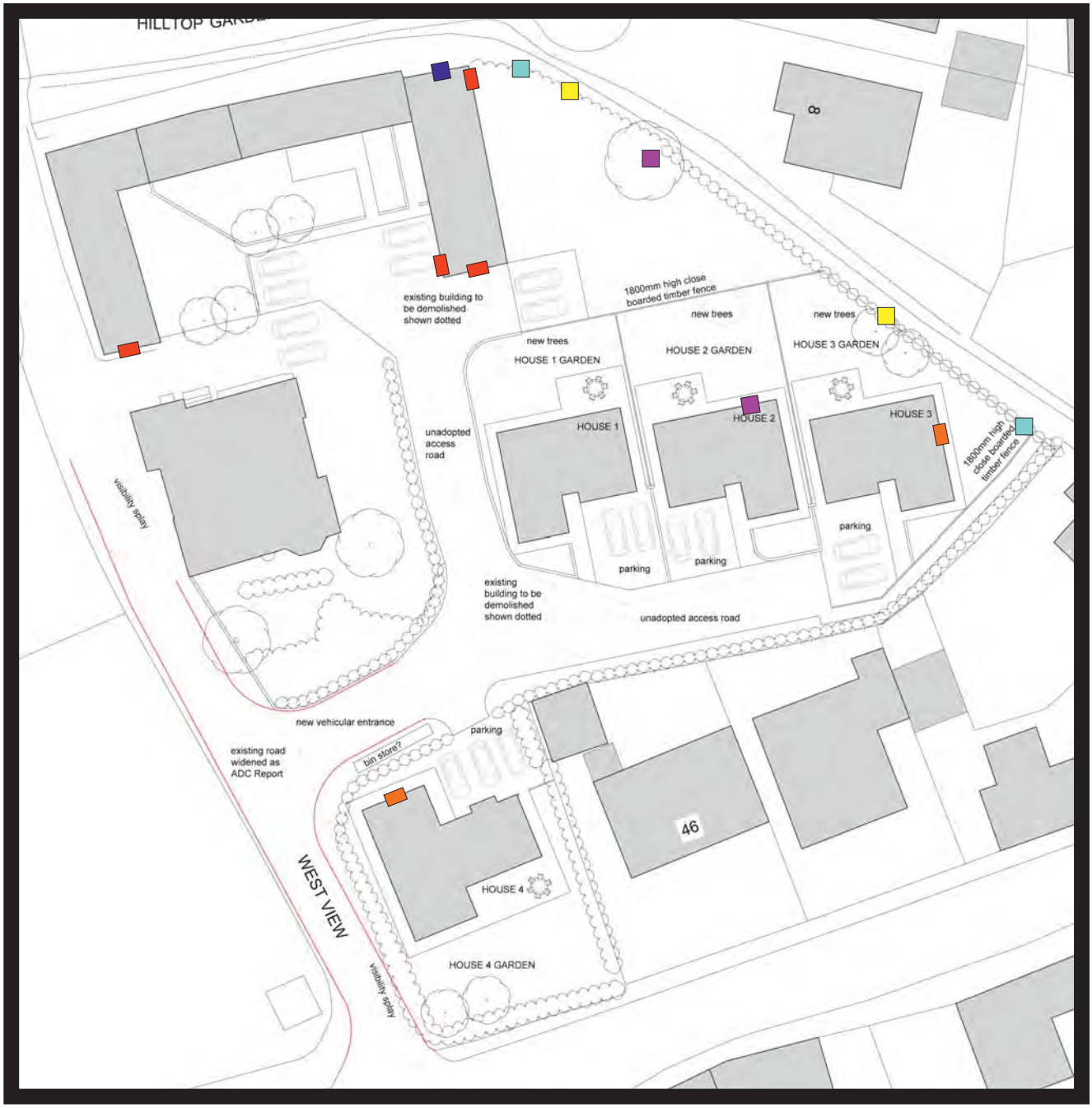
Location of site

KJ Ecology Ltd
Drawn by : KJ
Date : 05/08/2023

Appendix 2

Figure

Figure 1: Location of wildlife features around Whaplate Farm, Messingham.



Not to scale

Legend

- Swift boxes
- Bat bricks
- House Sparrow terrace
- Wren style boxes
- Blackbird style boxes
- Blue Tit box

KJ Ecology Ltd
Drawn by : KJ
Date : 05/02/2025

Appendix 3

Examples

Bat Boxes

Bird Boxes
Swift nest boxes



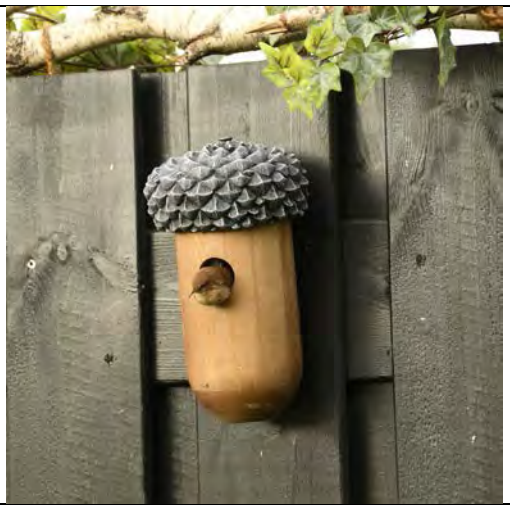





House Sparrow terraces

Blue Tit style boxes

Wren/ Robin style boxes



Open style boxes for Blackbirds/ Robins

Appendix 4

Plant Lists

Native Trees

Common Name	Scientific Name
Trees	
Apple sp.	*Malus domestica sp.*
Ash	*Fraxinus excelsior*
Beech	*Fagus sylvatica*
Bird Cherry	*Prunus padus*
Cherry	*Prunus avium*
Common Lime	*Tilia x vulgaris*
Common Whitebeam	*Sorbus aria*
Crab Apple	*Malus sylvestris*
English Elm	*Ulmus procera*
Field Maple	*Acer campestre*
Garden Pear	*Pyrus communis sp.*
Pedunculate Oak	*Quercus robur*
Plum sp.	*Prunus domestica sp.*
Rowan	*Sorbus aucuparia*
Silver Birch	*Betula pendula*
Small-leaved Lime	*Tilia cordata*

List of Native Hedgerow shrub Plants

Common Name	Scientific Name
Blackthorn	*Prunus spinosa*
Dog Rose	*Rosa canina*
Dogwood	*Cornus sanguinea*
Field Maple	*Acer campestre*
Field Rose	*Rosa arvensis*
Guelder Rose	*Viburnum opulus*
Hawthorn	*Crataegus monogyna*
Hazel	*Corylus avellana*
Holly	*Ilex aquifolium*
Honeysuckle	*Lonicera periclymenum*
Privet	*Ligustrum vulgare*
Spindle	*Euonymus europaeus*
Wayfaring Tree	*Viburnum lantana*
Yew	*Taxus baccata*