

Biodiversity Enhancement Plan

PROPOSED RESIDENTIAL DEVELOPMENT AT LAND
ADJACENT TO FIELDING STREET, MANCHESTER

Prepared for
HJK Consulting

7th July 2023
Version 01

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Project Details	
Report title	Biodiversity Enhancement Plan
Revision version	Version 01
Site address	Land adjacent to Fielding Street, Manchester
Grid reference	SD 87270 06753
Report composed by	Miranda Cowan Ecology Ltd.
Client	HJK Consulting
Date	7 th July 2023

Document History and Status					
Version	Date	Description	Created By	Verified By	Approved By
01	7 th July 2023	Ready for issue	Miranda Cowan (Tech Arb Ass)	Laura Able – Technical Support	

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Field surveys have been carried out, these have been restricted to a level of detail required to achieve the stated brief of the work. No part of this report may be copied or duplicated without express permission of Miranda Cowan Ecology Ltd. and the party for whom it was prepared.

The survey and reporting have been completed in accordance with the CIEEM Professional Code of Conduct, with the aim of upholding their objectives and the reputation of the profession.

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Appendix A: Biodiversity Enhancement

1 Introduction

1.1 Background

This Biodiversity Enhancement Plan has been prepared on behalf of HJK Consulting for granted outline planning permission (21/01628/REM) to erect 43 dwellings on land at Fielding Street, Middleton, Manchester, M24 6GP. The proposed site plan (HJK-FS-SP, FS-01, Rev 1) is included as **Appendix A**, with the site location shown as **Figure 1.1**. As instructed by HJK Consulting, this Biodiversity Enhancement Plan relates to the west section of the site only.

Condition 5 of the Approved Reserved Matters (Rochdale Borough Council, 21/01628/REM) states:

'No above ground construction works shall take place until a scheme of biodiversity enhancements for the site including, but no limited to, provision for bird boxes and bat boxes, has been submitted to and approved in writing by the Local Planning Authority. No dwelling shall be occupied until such time as the duly approved biodiversity enhancement measures within that plot have been installed in accordance with the duly approved detail.'

Reason: In the interest of enhancing biodiversity and habitat provision with the site in accordance with Policy G7 of the adopted Rochdale Core Strategy and the National Planning Policy Framework.

This Biodiversity Enhancement Plan has been informed by an Ecological Appraisal completed by Envirotech NW Ltd, August 2015¹ and a site survey completed by Miranda Cowan Ecology Ltd on the 12th of May 2023. The Biodiversity Enhancement Plan has been prepared on the basis that no baseline Biodiversity Net Gain assessment for the site is available.

Figure 1.1: Proposal site and the Development Plot for Biodiversity Enhancement



¹ Envirotech, Ecological Consultants Environmental and Rural Chartered Surveyors. (14th of August, 2015, Version 1). Ecological Appraisal, Land off Fielding Street, Middleton.

1.2 Scope and Delivery of Biodiversity Enhancement Plan

This Biodiversity Enhancement Plan relates to the development plot shown on **Figure 1.1**. The client is responsible for implementing habitat creation / enhancement and protected species features within the site as part of the progression of the development.

A suitably qualified ecologist will need to be consulted with respect to the installation of certain features such as bat roosting tiles to ensure they are appropriately sited relative to aspect and position on the roofs of residential dwellings.

Post development, habitat and species maintenance / monitoring should commence for a minimum period of 5 years. The developer will need to appoint either a Specialist Ecological Management Company (SEMC) or a company working under the direction of an Ecological Clerk of Works (ECoW) to oversee the management and monitoring of biodiversity site features.

The ECoW appointed for overseeing all works relating to biodiversity will need to be suitably qualified and experienced ecologist that is a member of the Chartered Institute of Ecology and Environmental Management or be otherwise approved by the LPA.

2 Review of Site Features

2.1 Designations and Conservation Features

There are no designations directly linked to the site. Envirotech NW Ltd, August 2015² identified the closest designation to be Higher Boarshaw Clough Site of Biological Interest (SBI), located 250m north-east and separated by urban conurbation. The SBI was assessed as not being significant to the proposal.

2.2 Habitats

At the time of a site survey completed on the 12th of May 2023 the site was under construction, with all habitats having been removed and construction commencing.

The Ecological Appraisal completed by Envirotech NW Ltd, August 2015 recorded habitats as comprising of dense scrub interspersed with rank poor semi-improved grassland. The scrub habitat included young shrub and tree specimens, including goat willow *Salix caprea*, crack willow *Salix fragilis*, common ash *Fraxinus excelsior*, silver birch *Betula pendula*, poplar species *Populus* spp., dog rose *Rosa canina* and non-native buddleia *Buddleia davidii*.

The poor semi-improved grassland comprised of the common and widespread species dandelion *Taraxacum officinale*, white clover *Trifolium repens*, red clover *Trifolium pratense*, creeping buttercup *Ranunculus repens*, common mouse ear *Cerastium fontanum*, bush vetch *Vicia sepium*, ribbed melilot *Melilotus officinalis*, bird's-foot trefoil *Lotus corniculatus*, common ragwort *Senecio jacobea* and horsetails *Equisetum* sp.

An extract (Envirotech NW Ltd, August 2015) of the Phase 1 habitat plan is shown as Figure 2.1. Conversion of the habitats into UKHab classification system³ may result in G4 Modified grassland and w1f7 Other lowland mixed deciduous, referring to self-sown and/or recently established in urban locations.

² Envirotech, Ecological Consultants Environmental and Rural Chartered Surveyors. (14th of August, 2015, Version 1). Ecological Appraisal, Land off Fielding Street, Middleton.

³ UK Habitat Classification Working Group (2018). UK Habitat Classification – Habitat Definitions V1.0.

Figure 2.1: Habitats as recorded by Envirotech NW Ltd, August 2015



2.3 Protected and Notable Species

A small electricity substation was recorded on the sites south-east boundary, which was also noted on the 12th of May 2023 and included on the sites Proposal Plan. The substation was a small square building with a flat concrete roof and did not display any bat roost potential.

As part of a desk study, Envirotech NW Ltd noted that bats were recorded in the general area and that the habitats offered some bat foraging potential. The shrubs and trees were assessed as not supporting Potential Roost Features (PRF) for bats.

The site was noted to potentially support breeding birds between March and August, inclusive, with recommendations to remain observant to nesting bird during vegetation removal.

No other protected or notable species were identified as being pertinent to the site and its development proposal.

1.4 Photographic Plates

Photographic plates taken on the 12 th of May 2023	
Plate 1: Site overview, absent of vegetation.	Plate 2: Site overview.
	
Plate 3: Brash pile from cleared vegetation.	Plate 4: Small sub-station.
	

3 Biodiversity Creation Measures

3.1 Overview

The site Proposal Plan (**Appendix A**) has been annotated with biodiversity creation features relating to habitats, bat roosting features and bird nesting boxes. In order to fulfill the requirements of Planning Condition 5 of Approved Reserved Matters (Rochdale Borough Council, 21/01628/REM), the client will need to integrate all biodiversity features within their own design plan, ensuring their successful implementation through relevant supporting documents relating to landscaping and the Construction Environmental Management Plan (CEMP) or similar.

All habitat creation and biodiversity measures for bats and birds are illustrated as **Appendix A**.

3.2 Tree and Hedgerow Planting

Table 3.1 provides a suitable list of tree and shrub species suitable for habitat creation (individual trees and hedgerows). The planting design is to promote habitat connectivity around the site's perimeter, whilst also offering screening benefits. The extent of hedgerow planting is proposed as 394m with 79 planted trees and selected areas of wild-meadow creation, located outside of residential gardens.

Trees and shrubs are to be sourced from a reputable plant nursery that specialises in native species. In the interest of biosecurity, trees will be sourced from seed within the UK, or at least grown-on in the UK for a minimum of one year after importation. The specimens will be either of root-balled or container grown stock. Shrubs should be in 5 litre plots, or where hedging is considered, specimens can be bare root whips.

Table 3.1: List of tree and shrub species to be planted as part of the development proposal.

Species English	Species Latin	Tree / Shrub	Tree Planting	Hedgerow Planting
Alder buckthorn	<i>Frangula alnus</i>	Shrub	X	
Crab apple	<i>Malus sylvestris</i>	Small tree	X	
Dog wood	<i>Cornus sanguinea</i>	Shrub		X
Elder	<i>Sambucus nigra</i>	Shrub		X
Guelder rose	<i>Viburnum opulus</i>	Shrub		X
Hazel	<i>Corylus avellana</i>	Shrub		X
Hawthorn	<i>Crataegus monogyna</i>	Shrub		X
Holly	<i>Ilex aquifolium</i>	Shrub		X
Maple	<i>Acer campestre</i>	Small tree	X	X
Pedunculate oak	<i>Quercus petraea</i>	Tree	X	

Species English	Species Latin	Tree / Shrub	Tree Planting	Hedgerow Planting
Silver birch	<i>Betula pendula</i>	Tree	X	
Wild cherry	<i>Prunus avium</i>	Tree	X	

3.3 Planting Method

The planting will be carried out in accordance with BS8545: 2014 – Trees: From Nursery to Independence in the Landscape. Ideally, planting will commence on a mild (avoiding frosts) winter day, between the months of November and March. All trees and shrubs will be planted immediately to prevent the roots drying.

Planting pits for trees and shrubs will be at least twice the diameter of the root spread, and 1.5 times the depth of the roots. The bottom and sides of the pit will be forked to break up the soil and any excavated subsoil shall be mixed with a planting compost before replacing.

Trees shall be planted to the original root collar soil depth. During backfilling the soil will be firmed (but not compacted) to ensure close contact with the roots, and successive layers of soil shall be firmed as the backfilling proceeds. All trees will be secured with two stakes, each 10cm in diameter and a minimum of 2.4m long, secured to the tree stem with a crossbar and webbing tie. Trees will also be affixed with a root guard and a deer shelter.

Bare root whips for hedgerow planting will either be placed in a hole large enough to allow free spread of the roots, or by splicing a notch in the soil to the full depth of soil and opening a gap up behind the slot to place in the bare root plant.

Each tree and shrub will be mulched with an organic woodchip planting to prevent competition from weeds and to reduce evapotranspiration from roots.

For hedgerow planting, the shrubs will need to be parallel planted, with individual species planted every 50cm using a variety of species to optimise diversity. Individual standing trees require distances of 5-8m to reduce the effects of competition and subsequent suppressive tree canopy growth.

3.4 Tree and Hedgerow Planting Aftercare

Aftercare will need to extend to a minimum of a 5-year period, with the first 3 years being a period of the following measures:

- Watering on a fortnightly basis during summer, June to August inclusive.
- Removal of grass and weeds within 1m radius of stems.
- Any formative pruning will be carried out by an arboricultural professional in accordance with BS3998: 2010 – Tree Works: Recommendations.
- Where necessary, adjustment, replacement or removal of stakes and cable ties.
- Where trees fail to successfully establish, they will need to be replaced.
- Due to competition for nutrients an annual mulch of well-rotted manure or compost will be applied to help maintain leaf vigor of trees and shrubs.

As shrubs become established, they will offer increased opportunities for birds to establish nests. Therefore, pruning and cutting specimens as they mature will need to be completed during the winter (November to February). This will ensure that nesting birds between March to August are not impacted and that any fruits and nuts developed on shrubs are retained as a food sourced for wildlife.

3.5 Meadow Creation

Throughout areas of grassland external to private residential gardens, every opportunity should be explored to establish a flower-rich meadow mix⁴, which will be based on sourcing a flower dominant seed base and implementing a sympathetic mowing regime, based on a single cut during the month of September.

The seed mix should contain the wildflower species yellow rattle *Rhinanthus minor*, common knapweed *Centaurea nigra*, pignut *Conopodium majus*, red clover *Trifolium pratense*, common sorrel *Rumex acetosa*, bird's-foot trefoil *Lotus corniculatus* and selfheal *Prunella vulgaris*. Grass species include sweet vernal-grass *Anthoxanthum odoratum*, common bent *Agrostis capillaris*, crested Dog's-tail *Cynosurus cristatus* and red fescue *Festuca rubra*.

Seeds will need to be sown into a suitably prepared bed, using either imported inert topsoil, or through preparation of existing soil for example through removal of weeds and large stones. Soil will be harrowed or raked to produce a medium tilth, followed by rolling or treading to produce a firm surface.

⁴ <https://www.wildflower.co.uk/> or, Hurrell & Mclean Seeds Ltd, Beverley Road, Cranswick, Driffield, East Yorkshire, YO25 9PF, 01377 271400, info@hmseeds.com or, John Chambers Wildflower Seed, Rabbit Hill Business Park, Great North Road, Arkdale, HG5 0FF, 01423 369730, sales@johnchamberswildflowers.co.uk

Ideally seeds will need to be sown during the autumn if possible. Sowing at other times of the year will be guided by an Ecologist and carried out if there is sufficient warmth and moisture. Seeds can be surface sown by machine or by hand.

Aftercare management of the newly seeded grass will need to take place during the first 6-12 months to ensure the establishment of a healthy sward. This will include regular cutting, weed control, and watering if required during dry periods. Any failed areas will be re-seeded/over-seeded as required using the appropriate mix.

Longer-term management will relate to a one yearly cut, ideally from mid-September. All arisings from meadow cutting will need to be removed from site.

3.6 Provision for Birds

Five swallow *Hirundo rustica* and five house sparrow *Passer domesticus* boxes will need to be erected upon the residential dwellings, at the general locations illustrated in **Appendix A**.

The specific bird nest boxes are shown as **Table 3.2** and can be sourced from NHBS⁵. The nest boxes can be fixed to houses, ideally facing east and below the roof overhand. No boxes should be placed above any windows.

The bird boxes are designed to ensure their longevity in the long term and are therefore expected to last for a lifetime. Whilst no general maintenance should be required, annual inspections are recommended as part of the general site wide management. Where boxes have been lost or damaged a replacement box will need to be sourced and mounted in the same or nearby suitable location. It may also be required to clean out the boxes during the winter, from October to February.

Table 3.2: Swallow and house sparrow nest boxes.	
Eco Swallow Nest: Swallows are sociable birds but the nest cups should not be placed too close together. A minimum distance of 1m between nest cups is recommended. The nest has holes for ease of fixing to a wall and can be cleaned in winter. 	Vivara Pro WoodStone House Sparrow Nest Box: The boxes can be integrated into the masonry of a new house or fixed onto an external wall using strong screws and wall plugs. 

⁵ <https://www.nhbs.com/>

3.7 Provision for Bats

Ten bat access slates as per **Table 3.3** will be required⁶. Two slates are recommended per residential property. The Bat Access Slate is of a standard sized slate, with a capped vent which allows access to roof felt for crevice dwelling bat species such as common pipistrelle *Pipistrellus pipistrellus*.

Table 3.3: Bat access slate for integrating with new roofs



3.8 Biosecurity

All site preparation works, construction methods and ecological enhancement will employ strict biosecurity measures. The key principles that are to be adopted within the development include:

- All vehicles and machinery accessing and being used on site will be maintained in a clean and tidy state. This will be achieved by wheel washing before attending site and carrying out pre-inspection of tools.
- Before leaving site, machinery and equipment will be inspected and made free of accumulations of organic debris in tyres and under wheel arches.
- There will be a systematic approach to vehicle movements on site, including allocating designated parking bays and carrying out daily checks for cleanliness, oil and fuel leaks.
- Vehicles and machinery are to have appropriate spill kits and designated refueling areas.
- All fuel and chemicals retained on site will be kept in a sealed unit.

All personnel involved in the works will be briefed on biosecurity measures and will maintain checks on their own clothing and footwear. Personnel need to be aware of other sites that they have visited which may contain invasive plant species, that can be otherwise transported between construction sites.

In relation to the above an industry alcohol-based disinfectant will be sourced and a supply of clean water to carry out washing within a designated area

⁶ <https://www.nhbs.com/>

3.9 General Site-Wide Husbandry

Any general site husbandry issues that occur within the post development extents should be identified and reported to the relevant authority as appropriate. This relates to fly-tipping, pollution incidents and dog fouling issues.

3.10 Ecological Clerk of Works

An Ecological Clerk of Works (ECoW) will need to be adopted to help inform requirements for habitat creation and for guiding the installation of bat and bird boxes. The ECoW will also be able to provide guidance relating to any unforeseen potential impacts upon protected and notable species.

3.11 Monitoring

Every 6 months for the first 3 years, the establishment of habitats are to be monitored and managed accordingly to allow for any remediation works to be completed, such as re-planting of failed hedgerow shrubs and trees and weeding out of competitive species within meadow grassland. A record should be kept for the dates and times of the monitoring and for all remediation / site maintenance work undertaken.

4.0 Conclusion

This Biodiversity Enhancement Plan has been prepared to support the implementation of **Condition 5** of the Approved Reserved Matters (Rochdale Borough Council, 21/01628/REM) for erection 43 dwellings on land at Fielding Street, Middleton, Manchester, M24 6GP.

The requirement for biodiversity has been addressed through provision of 394m of boundary hedgerows, 79 planted trees, localised areas of wild-meadow creation, 10 bird boxes (5 swallow and 5 house sparrow) and 10 bat access slates. All species for hedgerow, tree planting and meadow creation should utilise native species sourced from the UK.

The Biodiversity Enhancement Plan should be implemented for a minimum period of 5 years and reviewed thereafter. The client is responsible planning in post development monitoring and maintenance works, using a Specialist Ecological Management Company (SEMC) or a company working under the direction of an Ecological Clerk of Works (ECoW) to oversee the management and monitoring of biodiversity site features.

Appendix A: Biodiversity Enhancement Plan

