

Biodiversity mitigation and enhancement plan



67243 Five dwellings, and new/improved formal and informal community open space, replacement / improved footpath connections and wider greenspace enhancements

Land off Brownhills Close / Bury Road, Tottington

18 July 2024

Peter Black MRTPI

Blackfryers Environmental Consultants

9 Ecclesbridge Road, Marple
STOCKPORT SK6 7PF
Tel: 0750 522 1405
PeterBlack62@gmail.com

1 Introduction

Reports which set out how wildlife interests will be enhanced, restored, and maintained go under a variety of names. This report is the equivalent of a 'Biodiversity Management Plan' ('BMP,' as specified in BS42020).

Outline application 67243 was granted on 1 June 2023 by Bury MBC for five houses on land off Brownhills Close / Bury Road, Tottington subject to a number of conditions including: 7 '9 As *part of the first reserved matters a biodiversity mitigation and enhancement plan shall be submitted to and approved in writing including:*

- *Habitat enhancement measures on the retained site.*
- *Landscaping within the developed site.*
- *Mitigation and enhancement of the site for nesting birds*
- *A 5-year management and maintenance plan*

The application was submitted before formal requirements for BNG under the Environment Act 2021 was brought into force so the general presumptions regarding biodiversity in the National Planning Policy Framework and local UDP apply.

Extended Phase I habitat surveys were conducted in August 2020 and July 2024. The map from the 2024 survey is in the appendices.

The site contains rough grassland, scrub, and secondary woodland. A tributary of Kirklees Brook also runs through the site, flowing east. It is bordered on three sides by residential development with a greenway on a former railway to the NE. The general area and the site show signs of significant previous industrial activity. The entire site shows disturbance, including evidence of building remains. There are **no national designated wildlife sites** nearby. Kirklees Valley Local Nature Reserve (LNR) adjoins the site to the NE.

The site is dominated by species typical of nutrient-rich grassland and secondary woodland and includes a range of common pioneer species and agricultural weeds.

One hole consistent with being created by **badgers** was found in one of the areas to be retained as landscaping, and although there was no sign of recent activity, this species is common in the area and appropriate Reasonable Avoidance Measures will be adopted to avoid the potential to adversely affect badgers.

Patches of invasive non-native species were found, of which the most significant is Japanese Knotweed (*Reynoutria japonica*). Himalayan Balsam (*Impatiens glandulifera*) is also present throughout the site, and there are also patches of *Spiraea salicifolia*, *Symphiocarpus* ssp and *Montbretia*. These all need to be managed as part of this plan.

The objectives of this plan are to:

- **Maximise the long-term biodiversity value consistent with semi-natural vegetation in an urban area with high access (a public footpath runs through the site)**
- **Control invasive non-native species that might harm biodiversity.**

This plan and subsequent maintenance have deliberately been kept simple – if not, it is unlikely to be maintained or provide the biodiversity gain required and expected.

2 Scope and Delivery

This plan addresses biodiversity enhancement across the entire site with management prescriptions for areas of scrub/tree habitat and a new orchard and wildflower meadow created to increase biodiversity.

The developer is responsible for the creation and establishment works for a five-year period. It will 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 delivery of this plan before work starts on site. The ECoW could be an experienced ecologist, or as otherwise agreed with the LPA. After year five, this plan will be the responsibility of the site owner.

3 Description and evaluation of features

The Phase I Habitat Surveys (2020 and 2024) identified the main habitat areas. The entire site is habitat of low distinctiveness and in poor condition.

- **B6 Poor/Semi Improved grassland (SI on map).** This grassland has only a limited range of grasses and herbs, particularly those demanding of nutrients. Species such as Docks, Nettle and thistles indicate local enrichment of the soil by grazing animals and human activity. Meadow Brown butterflies were active, but no other species were observed.
- **A1 Broadleaved woodland. (BW on map).** Significant parts of the site are covered by scrub that has succeeded to woodland. Some trees may have been planted, but overall, the woodland is comprised of pioneer species such as sycamore, ash and willow that will have self-seeded. The understorey is high-nutrient and impoverished – dominated by nettle, Himalayan Balsam, and a range of ruderal species.
- **A2 Dense/Continuous scrub (DS on map).** Much of the site has dense scrub cover. The southern area, recorded in the previous survey (2020) as semi-improved grassland with scattered scrub now has continuous scrub cover.
- **J1.4 Introduced Scrub (IS).** Several small areas contain introduced and potentially invasive shrubs including *Spiraea salicifolia* and *Symphiocarpus*.

4 Ecological Trends and Constraints

Most of the site is following a classic succession from grassland to scrub to low-value secondary woodland dominated by an understory of nettles and brambles. Ash trees on the site are affected by Ash Dieback and it is unlikely that any will survive. The stream and its immediate surroundings are also showing signs of succession to secondary woodland, although the steep ground and water movement will keep this part of the site more open.

Without intervention, the site would become covered in dense scrub/woodland with poor biodiversity.

Protected species:

- **Badgers.** The badger/mammal hole to the south of the site presents a constraint. This is in secondary woodland that will be retained. Work on vegetation in this area should

avoid times when badgers show 'winter lethargy' (December/January). The Badger Reasonable Avoidance Method Statement gives further details.

- **Bats.** There is no evidence that bats roost in or around the development site.
- **Nesting birds.** Any site clearance should avoid March–August inclusive. Any clearance during this time should be preceded by a nesting bird survey.
- **Access** to most of the site unrestricted and a public right of way runs through it. However, the stream has steep sides and while the terrain restricts access to the public, it also makes access problematic for habitat management.

5 Management Aims and Objectives

As well as the strategic objectives (section 1), specific management aims are to:

- Retain and enhance the two retained areas of scrub/secondary woodland.
- Retain and enhance the brook and its immediate surrounding habitat.
- Establish an orchard, and a wildflower meadow.
- Provide habitat connectivity to the Greenway to the NE of the site.
- Encourage use of the site by mammals, pollinating insects, and birds.

6 Habitat Management and Creation

6.1 Retained Scrub/secondary woodland areas

Rationale: retained Scrub/secondary woodland is dominated by patches of nettle, bramble and tall ruderal plants indicating high nutrient soils. There is poor species diversity.

potential to increase the structural diversity and species composition.

Objectives

1. Avoid disturbance to and increase attractiveness to mammals including Badgers.
2. Reduce cover of dominant ruderal species and control invasive non-native weeds.
3. Establish diverse open structure of flowering herbs and woody shrub species.
4. Retain and increase volume of dead wood.

Specification:

Before works start – identify and mark **invasive non-native species (INNS)**. These should be removed or treated with herbicide. Specific measures are needed for Japanese Knotweed. The soil should not be disturbed, and the plant cleared by either spraying or stem injection of Glyphosate. At least two treatments per year for two growing seasons is required.

Year 1—5 October— April Strimming / brushcutting to clear patches of dominant weeds (nettles, thistles, willowherb) in an annual rotation will diversify flora and allow seeded species to establish. Seeding in to cleared patches and margins. Planting 30% area of cleared patches with bare rooted native shrubs (Blackthorn, Field Marple and Hazel).

Monitoring Year 2 and 4 Ecologist survey to record outcomes and recommend action.

Remedial actions Localised weed control or over sowing with wildflower flowering woodland mix in cleared patches Management Treatment of INNS should be included in a site wide management programme.

6.2 Wildflower meadow

Rationale: Maximise the number of flowering plants to benefit invertebrates and in turn, larger fauna. This will be achieved through a combination of wildflower seeding and wildflower management.

Objective: Ensure that all seeding in the locations shown contains wildflower seeds (grass only mixes not used), that the flowering plants attain, and remain at, no less than 30% of the sward and that plants can flower (are not cut too early or too often).

Specification: Preparation in all wildflower areas - subsoil with low fertility will be used. This will be loose tipped and spread with back actor to avoid compaction and harrowed to a fine tilth ready for seeding. Seeding Seed according to supplier's instructions. If soils have been spread before September, any weed growth that has established in the meantime will be sprayed off with glyphosate and a seedbed be re-prepared. Seed will either be broadcast by hand or by approved lightweight machinery at c. 40Kg /Ha. Following seeding the area will be lightly rolled to incorporate the seed with the growing substrate.

Year 1 Management Five cuts, collect arisings and remove from site. Use a weed wipe three times in year 1 to kill off weeds - Spear thistle, creeping thistle, broad-leaved dock, clustered dock, wood dock, curled dock, nettle, ragwort, and others according to ecologist recommendations. Operative must be proven competent in identifying these in their initial stages to prevent killing off sown wildflowers.

Year 2 Monitoring: Ecologist survey to record relative cover values.

Management Year 2 onwards: September –annual cut and remove arisings as a hay crop, followed by hard raking.

Monitoring Year 4 Ecologist survey to record relative cover values.

6.3 Hedgerow

Rationale: 145m of new mixed, native hedgerow within the site will be established and managed to maximise their value to fauna - both as source of food and shelter for wildlife

Objectives Establish a continuous and unbroken hedgerow with berries that will remain on trees until the end of winter to provide a food source.

Specification: As per the Landscape Plan.

Aftercare and Management Year 1 –3 standard hedgerow establishment. Year 4 onwards - Cut no more than 90% of hedge in February, spread chippings under the hedge. Leave remaining sections to grow for 1 further year. Vary the location of sections which are left for two years each year.

6.4 Planted Trees including Community Orchard

Rationale: Provide amenity for the new development, but also to provide nectar and berries for birds; eventually to provide nest and roost sites

Objective: Ensure that trees establish well after planting including showing a healthy and attractive structure, and free from invasive weeds. Specification

Plant into weed free ground with woodchip mulch behind rabbit proof fencing or in open stands with tree shelters.

Woodland flower seed mix Emorsgate EW1 or equivalent. Management Standard landscape establishment and maintenance as Landscape Management Document. An annual cut mid-summer may be worthwhile for a more managed appearance and to keep weeds of semi-shade such as nettles and brambles in check. Monitoring Landscape Architect standard monitoring visits for landscape planting.

6.5 Features for birds and bats

Rationale: Population numbers of small birds, but also potentially larger birds and bats are often limited by available nest and roost sites rather than food. Providing nest/roost opportunities can increase the population density.

Objective: Provide spaces for birds to nest and bats to roost.

Specification:

- Each house should have at least two 'swift bricks' and two 'bat bricks.'
- Provide ten tree mounted bird boxes.
- Provide five Tree mounted bat boxes.

Swift and Bat bricks – a range of commercial bricks are available (see <https://www.nhbs.com/>). These should be chosen to match the materials eventually agreed for the dwellings, avoid south facing walls and be just under the eaves – 5m above ground level is ideal. Bat bricks should be placed high up in an elevation facing south-easterly to south-westerly aspect and have a clear flightpath.

Tree mounted bat box - 5 x [Kent Bat Box](#) (two pairs and a single) or equivalent as agreed with the ecologist, at minimum of 4m with clear flight-lines and providing a range of orientation.

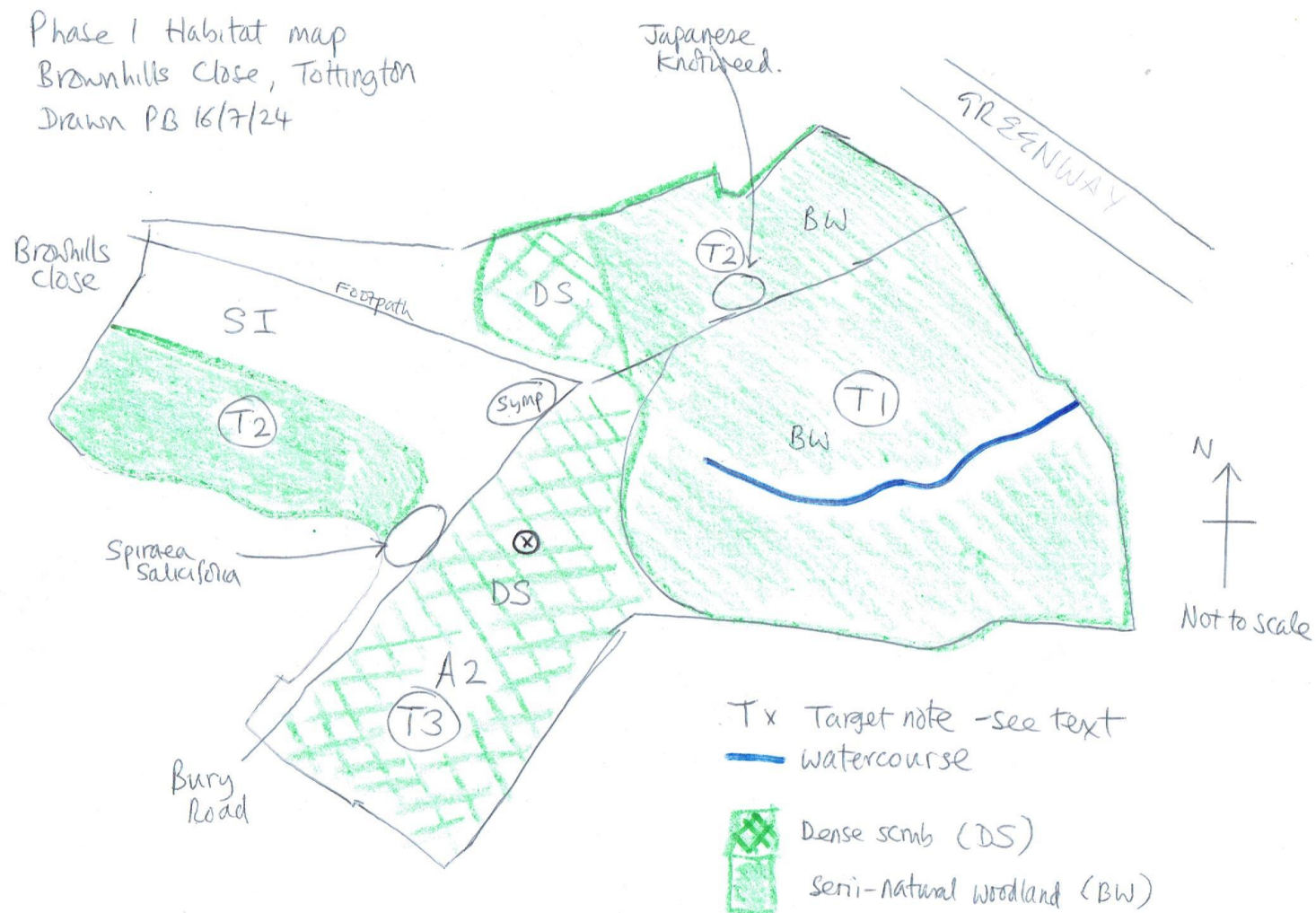
Tree mounted bat box - 10 with small holes to encourage smaller birds such as Tits. They should avoid a westerly aspect (to keep them out of the wind) and have a clear flight path in.

7 Work Schedule

The work schedule covers a 5-year establishment period including creation, and site management afterwards. Year 1 is triggered as soon as site clearance works start. The actions will be carried out under the direction of an experienced ecologist where required.

Task	Ecologist?	Year 1	Year 2	Year 3	Year 4	Year 5+	Comments
Treat Japanese Knotweed and other INNS with Glyphosate	Yes	Yes	Yes	Yes	Yes	Yes	As soon as possible
Vegetation removal, including dealing with Japanese Knotweed and other invasive non-native species	Yes	Autumn preferred	-	-	-	-	Avoid Bird nesting season. Mark animal hole and exclusion zone
Bat and bird boxes	-	Anytime	-	-	-	-	Place in larger retained trees
Bat and swift bricks	-	Yes	-	-	-	-	At appropriate stage in construction
Ground forming and soil cultivation	-	Yes	-	-	-	-	Hand tools only within 10m of animal hole
Prepare wildflower meadow for seeding	-	March-Sep	March-Sep	-	-	-	
Sow wildflower meadow	Yes	Sep/Oct	Sep/Oct				
Establish and manage wildflower grassland	Yes	-	April-Sept	April-Sept	April-Sept	April-Sept	Cut and remove arisings
Tree/shrub planting including community orchard and new hedgerow	-	Nov- Feb	Nov- Feb				Gap up in winter as appropriate
Hedgerow management	Yes	-	-	Gap up	Cut 80%		All works to be in Winter, preferably after birds have stripped berries.
Establish community group to look after orchard	-	-	Yes	-	-	-	When houses occupied
Replace any dead or dying trees/shrubs	-	-	Yes	Yes	Yes	Yes	Ongoing process as required

Appendix – Phase I survey 16 July 2024



Site landscaping and biodiversity enhancement proposals



EXISTING SITE:

-  EXISTING TREE RETAINED
-  EXISTING TREE REMOVED

HARD LANDSCAPE:

-  PROPOSED CONCRETE BLOCK PAVING TO SHARED SPACE
MARSHALLS TEGULA OR SIMILAR APPROVED
COLOUR PENNANT GREY
-  PROPOSED CONCRETE BLOCK PAVING TO DRIVES
MARSHALLS TEGULA OR SIMILAR APPROVED
COLOUR HARVEST
-  PROPOSED ASPHALT FOOTPATH 2.1M WIDE
LEVELS TO ALLOW FULL WHEELCHAIR ACCESS

SOFT LANDSCAPE:

-  PROPOSED SPECIMEN TREES - TOTAL 66 NUMBER
PLANTED AS A MIX OF 12-14CM GIRTH AND 14-16CM GIRTH
ALL TREES TO BE DOUBLE STAKED AND TIED
-  PROPOSED MIXED NATIVE HEDGEROW
TOTAL 145 LIN M - MADE UP OF 1+2 TRANSPLANTED WHIPS
PLANTED AT 5LIN M IN A DOUBLE STAGGERED ROW
LAWN AREA (TO BE SEED OR TURFED)
-  TURF TO BE LAID ON MIN 150MM DEPTH OF TOPSOIL LIGHTLY
COMPACTED AND RAKED TO A FINE SURFACE TILT
-  PROPOSED WILDFLOWER MEADOW

BOUNDARY TREATMENTS:

-  PROPOSED BOUNDARY FENCE
1.8M HIGH VERTICAL CLOSE BOARDED TIMBER FENCE
OR SIMILAR APPROVED

SOFT LANDSCAPE SPECIFICATION NOTES:

- ALL PLANTING WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH BS 4043, BS 4428 AND BS 5837
- ALL PLANTING/TURF AREAS TO BE PREPARED BY REMOVING ANY DETRITUS/CONSTRUCTION MATERIALS AND STONE/ROCK/BRICK GREATER THAN 40MM DIAM. AREA SHALL BE CLEARED OF WEEDS USING A TRANSLOCATED HERBICIDE AND CULTIVATED TO A DEPTH OF 300MM. WHERE EXISTING SOIL IS POOR QUALITY TOPSOIL SHALL BE IMPORTED.
- ALL PLANTS SUPPLIED SHALL COMPLY WITH BS3936: PARTS 1 TO 10 AS RELEVANT, BS 4043 AND THE NATIONAL PLANT SPECIFICATION, PUBLISHED BY THE HORTICULTURAL TRADES ASSOCIATION.
- ALL LAWN AREAS TO BE CULTIVATED TO A DEPTH OF 150MM PRIOR TO LAYING OF TURF. IF THE EXISTING SOIL IS POOR QUALITY - TOPSOIL SHOULD BE IMPORTED.
- ALL SHRUB PLANTING AREAS TO RECEIVE A 50MM LAYER OF ORGANIC SOIL CONDITIONER (GRO CHAR OR SIMILAR APPROVED) AND BE CULTIVATED TO A DEPTH OF 300MM PRIOR TO PLANTING.
- ALL IMPORTED TOPSOIL MUST COMPLY WITH BS 3882:2015
- ALL PLANTS ARE TO RECEIVE SLOW RELEASE FERTILISER TO THE PITS. SIDES OF PITS TO BE LOOSENEED PRIOR TO PLANTING.
- ALL PLANTS TO BE WELL WATERED IN AT PLANTING.
- ALL PLANTING AREAS TO BE MULCHED WITH 75MM TO 100MM DEPTH OF BARK CHIP.

Appendix – site photos

Figure 1 General view of site looking east from Brownhills Close.



Figure 2 Animal hole – see text for explanation – hand tools only within 10m of this hole.



Figure 3 Stand of Japanese Knotweed – it is essential to avoid spreading soil with rhizomes from near this plant.