

BIODIVERSITY ENHANCEMENT MANAGEMENT PLAN

JULY 2024

Hogshaw Farm,
Fairfield,
Buxton,
SK17 7HN

U R B A N
G R E E N



QUALITY MANAGEMENT

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1 Introduction

1.1 Background to the Scheme

Barratt Homes are proposing to develop land at Hogshaw Farm in Fairfield, Buxton (hereafter referred to as ‘the site’). The proposals include the construction of approximately 99 residential units with associated hard and soft landscaping.

Urban Green have been appointed to provide a Biodiversity Enhancement Management Plan (BEMP) for the site which has been written to accompany the Biodiversity Net Gain Assessment of this site.

The author of the report is Biodiversity Net Gain Consultant, Sarah Child. Sarah has experience providing consulting services in Biodiversity Net Gain for a range of development schemes, both residential and commercial, across the UK.

1.2 Site Context

The site is located at National Grid Reference SK 06584 74409 and comprises a total area of approximately 5.6ha (see Figure 1).

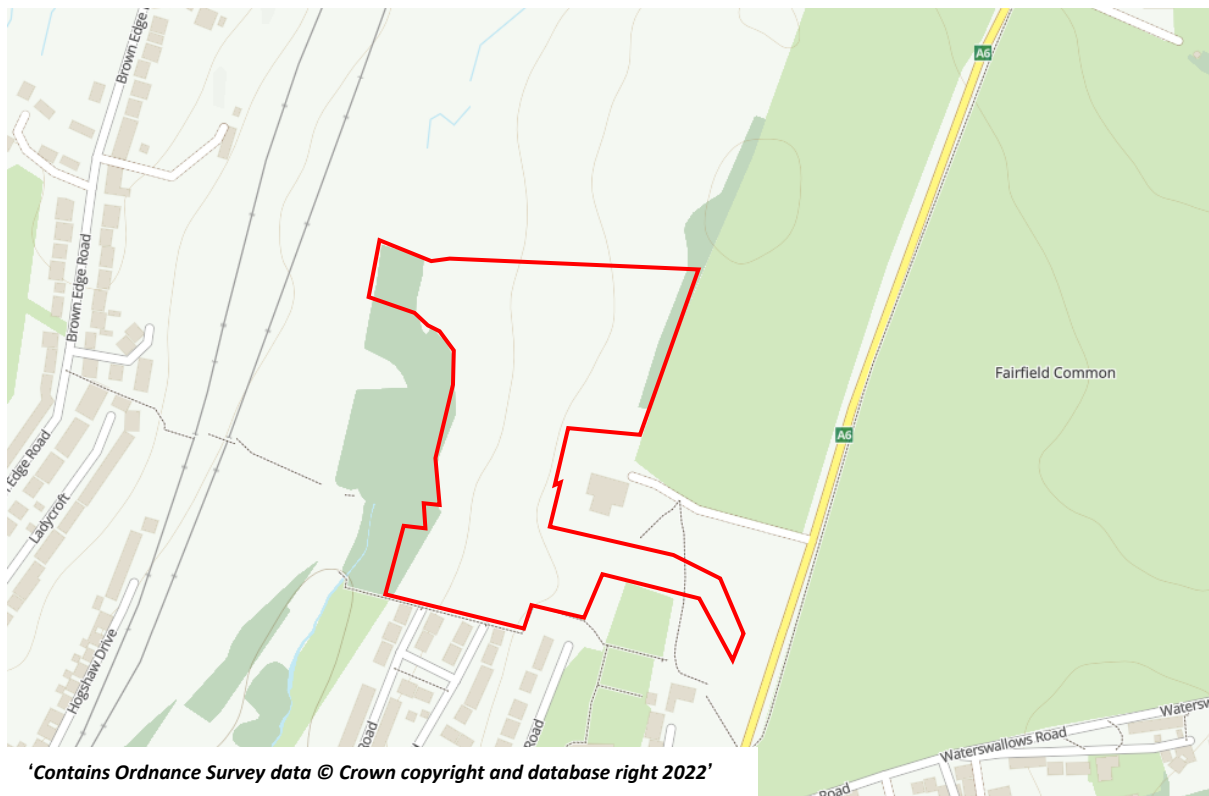


Figure 1 – Site Extent

The site is located in the rural-urban fringe of Buxton, approximately 1.5km north-east of the town centre. The A6 lies approximately 50m east of the site, with Nun Brook approximately 20m west of the site. Residential housing lies immediately south of the site, with areas of recreational green space to the east and west and agricultural land to the north. An industrial unit is present along the central aspect of the eastern boundary of the site.

1.3 Purpose of this Management Plan

The purpose of this management plan is to provide a schedule for the long-term management of habitats on site, ensure that existing and proposed habitats are suitably maintained and ensure good establishment and continued improvement of habitat condition. This allows those responsible for the management and maintenance of the site to understand the existing habitats, the development and ongoing management requirements of the site. Habitats should be maintained under a formal management regime for a minimum of 30 years, in accordance with the Environment Act 2021, with regular assessments during this period to assess the development and condition of habitats.

1.4 Aims of this Management Plan

This management plan covers the habitat creation and enhancement on site, as detailed within the Biodiversity Net Gain (BNG) Assessment (Urban Green, 2024a & 2024b). This report assessed the development as scoring an 86.76% net gain in area habitat units, a 19.85% net gain in linear hedgerow units, and no net change in river units utilising the Biodiversity Metric 3.1.

Appropriate management practices are essential to ensuring that the proposed habitats reach the condition outlined within the Biodiversity Net Gain assessment and that the development achieves the predicted gain in value to the environment. The aim of this management plan is to provide a habitat management plan that:

- Maintains and enhances site biodiversity, through the sustainable management of on-site habitats;
- Promotes the successful establishment and growth of newly created habitats;
- Ensures the health and safety of all site user's post development is protected;
- Outlines a process for the regular monitoring and review of management practices and site habitats; and
- Provide measurable and achievable targets appropriate to each habitat to ensure condition targets are met as set out in Section 6 in accordance with Biodiversity Metric 3.1 habitat condition sheets.

2 Development Proposals

The current landscape proposals for the development of the site produce an 86.76% net gain in area habitat units, a 19.85% net gain in linear hedgerow units, and no net change in river units. Overall, it demonstrates that the post-development habitats on site will provide more ecological benefit to wildlife than the habitats currently found on site and the development is in line with the relevant National Planning Policy Framework and Local Planning Policies. The proposed development also satisfies the trading rules.

3 Management Considerations

3.1 Management Responsibilities

The implementation of this management plan will be the responsibility of the landowner for a minimum of 30 years, based on requirements within the Environment Act (2021). Any transference of responsibility of this plan should be undertaken with the appropriate appointment of a competent organisation capable of delivering the management detailed within the document.

The organisation implementing this plan will be a management company with the necessary certificates of competence to implement landscape management operation on site. The managing organisation will ensure that all site management complies with good practice standards and all relevant health and safety procedures. The managing organisation will also ensure that measures outlined to avoid pollution incidents, comply with protected species and habitats legislation, and ensure overall environmental protection are enforced.

A maintenance specification is provided in Section 6. This sets out the detailed maintenance requirements for the habitats onsite, which must be followed at all times. Any deviations from the management plan must be highlighted to the site owners or management company.

3.2 Controlling Authority

The controlling authority, High Peak Borough Council, should be consulted on any matters relating to the approved landscape proposals for the scheme.

3.3 Health and Safety

The site will be managed to comply with all relevant health and safety legislation, approved codes of practice (ACOP) and Health and Safety Executive (HSE) guidance.

As the managing organisation will be the main company involved in on site works, the managing organisation will fulfil the landowner's role and the work manager's role. This places an obligation on the managing company to ensure that any contractor understands and fulfils their health and safety role and any work undertaken on the site will follow the guidelines of the HSE.

3.4 Monitoring and Review

Regular monitoring of the development against measurable targets (as detailed within Section 6) will be undertaken across all habitats detailed within this management plan during the 30-year period. The outcome of this monitoring will form part of a Monitoring and Audit Report to be submitted to the site owner annually to inform the forthcoming year's work. The report will include management operations undertaken, any unexpected changes or declines in habitat condition and any actions required that fall outside those detailed within this report.

A more in-depth habitat assessment of the created habitats on site should also be undertaken between April and September annually by an experienced ecologist. Results should be reported back and feed into a five-year management plan review, to enable assessment of the management prescriptions against the defined objectives for each habitat. Where objectives are not being adequately met, appropriate action will be put in place, with any refinements incorporated into the updated management plan and annual work programme. This review will enable maintenance operations to evolve in accordance with habitat requirements as they establish, and mature and targeted conditions are met.

3.5 General Measures

Habitat creation on site will follow details set out in the Detailed Planting Plan (Urban Green, 2024c). The following general measures shall be met to ensure successful habitat creation and succession on site.

- All planting is to follow guidance set out in the relevant British Standard or Horticultural Trades Association documents and carried out by a competent person.
- Planting is to remain undamaged, with healthy and vigorous growth, and is to be planted upright and well balanced. Trees and shrubs are to be of good shape and without elongated shoots, grown in a suitable environment and hardened off before being delivered to the site.
- All planting is to be true to name and free from pests, diseases, discoloration, weeds, fungus, and physiological disorders upon planting.
- If plants/trees are unobtainable alternatives are to be agreed with the Ecologist/Landscape Architect in writing prior to ordering.
- After planting ensure that the full depth of topsoil is wetted. Apply water evenly and without damaging or displacing plants or soil. Continue to water as necessary to ensure the successful establishment and continued thriving of planting.
- All tree/shrub/hedgerow works shall be completed outside of nesting bird season (i.e. between October and February inclusive). If works are required within the nesting bird season, a check must be undertaken of all affected trees by a suitably qualified ecologist.
- All tree works shall be carried out by a skilled, qualified and approved Arboricultural Contractor in accordance with BS3998: 2010 'Tree Work – Recommendations'.

4 Ecological Baseline

The ecological baseline for the site was assessed within the Preliminary Ecological Assessment (PEA) (Urban Green, 2023) informed by an extended phase one habitat survey. A summary of designated sites, notable and/or protected species and habitats identified is provided below, with full descriptions of each feature available within the PEA. The baseline habitat map for the site can be found in the Biodiversity Net Gain Report (Urban Green, 2024a).

Table 1 – Identified designated sites relevant to the site.

Designated Site	Considered within Assessment	Rationale for Consideration
Statutory Designated Sites		
Peak District Dales Special Area of Conservation (SAC)	No	Site falls outside of the 1km radius (1.3km south-east of site)
South Pennine Moors SAC / Peak District Moors Special Protection Area (SPA)	No	Site falls outside of the 1km radius (2.6km west of site)
Waterswallows Quarry (SSSI)	Yes	Site falls within the Impact Risk Zone for the SSSI
The Wye Valley (SSSI)	Yes	Site falls within the Impact Risk Zone for the SSSI
Topley Pike and Deep Dale (SSSI)	Yes	Site falls within the Impact Risk Zone for the SSSI
Poole's Cavern and Grin Low Wood (SSSI)	Yes	Site falls within the Impact Risk Zone for the SSSI
Goyt Valley (SSSI)	Yes	Site falls within the Impact Risk Zone for the SSSI
Leek Moors (SSSI)	Yes	Site falls within the Impact Risk Zone for the SSSI
Non-statutory Designated Sites		
Railway Land Hogshaw Local Wildlife Site (LWS)	Yes	The area of woodland to the west of the site lies within the Railway Land Hogshaw LWS.

Table 2 – Identified species relevant to the site.

Species / Species Group	Evidence	Considered within Assessment	Rationale for Consideration
Fauna			
Invertebrates	Limited quality habitats for invertebrates	No	One record of notable invertebrates was found during the data search, but there is limited habitat provision.
Common Amphibians	Suitable linear habitat present	Yes	No records of common amphibian were found, however the habitats present on site have potential to support amphibians.
Great crested newt (<i>Triturus cristatus</i>)	None	No	Three records of GCN were returned within the data search, however there is limited habitat provision on site.
Reptiles	None	No	No records returned in the data search and the habitats present on site have potential to support amphibians.
Birds	Suitable habitat present	Yes	11 records of protected/notable bird species were returned from the data search. There is suitable nesting potential for passerine birds and foraging for birds of prey.
Bats (all species)	Suitable habitat present	Yes	24 records of bats and two records of roosts were returned. The site was assessed to have moderate value for roosting, foraging and commuting bats.
Hedgehog (<i>Erinaceus europaeus</i>)	Suitable habitat present	Yes	Four records of hedgehog were returned. The hedgerow habitats have potential to support hedgehog and there is connectivity with other suitable habitats.
Brown hare (<i>Lepus europaeus</i>)	Suitable habitat present	Yes	One record of brown hare was returned. No evidence of brown hare was found, however there is suitable habitat present.
Water vole (<i>Arvicola amphibius</i>)	None	No	On record returned for water vole, however, there is limited suitable habitat on site.
White-clawed crayfish (<i>Austropotamobius pallipes</i>)	Suitable habitat present	Yes	No previous records of white-clawed crayfish, however Nun Brook may provide suitable habitat (surveys not yet completed).

Species / Species Group	Evidence	Considered within Assessment	Rationale for Consideration
Fish	None	No	Three records of brown trout (<i>Salmo trutta</i>) were returned, however Nun Brook was not considered suitable for fish.
Flora			
Vascular plants	None	No	Seven records for vascular plants were found during the data search, but the site lacks the characteristics to support notable plant species
Invasive Plant Species	Observed on site	Yes	31 records for invasive plant species were returned, and Japanese knotweed (<i>Fallopia japonica</i>) and Himalayan balsam (<i>Impatiens glandulifera</i>) were observed on site.

Table 3 – Pre-development Habitats Identified

UK Hab Classification	Dominant Species / Description	Development Actions and Mitigation
Area Habitats		
Grassland – Modified Grassland	Five parcels of modified grassland were present on site, with varied levels of management and species compositions. Species present included perennial rye grass (<i>Lolium perenne</i>), with occasional cock's foot (<i>Dactylis glomerata</i>), dandelion (<i>Taraxacum agg.</i>), and creeping buttercup (<i>Ranunculus repens</i>). Some parcels also contained Japanese knotweed.	All parcels of grassland were in poor condition and offer limited habitat provision. New areas of wildflower meadow will be created around the periphery of the site and within the public open space which will be more ecologically beneficial.
Woodland – Other Woodland; Broadleaved	An area of woodland was present along the western site border, which included ash (<i>Fraxinus excelsior</i>), goat willow (<i>Salix caprea</i>), wych elm (<i>Ulmus glabra</i>), and cherry, sycamore (<i>Acer pseudoplatanus</i>). This area of woodland forms part of the Railway Land Hogshaw LWS.	While this area of woodland was poor condition, it still provides ecological value, however it will be lost to accommodate for the development. New areas of woodland will be created within the LWS and additional urban trees will be planted on site, however the loss of this habitat will not be fully compensated for.
Urban – Urban Trees	Four urban trees were present on the site along the western boundary – three goat willow and one silver birch (<i>Betula pendula</i>). These trees were inside the Railway Land Hogshaw LWS.	All four urban trees will be lost, however an additional 217 urban trees will be planted to mitigate for those lost
Urban – Artificial Unvegetated, Unsealed Surface	A footpath comprised of compact gravel substrate. No species present.	The metric allocates this habitat a condition score of N/A as it has low ecological value.

UK Hab Classification	Dominant Species / Description	Development Actions and Mitigation
Urban – Developed Land; Sealed Surface	Three buildings present on site, with some roosting potential for bats.	The metric allocates this habitat a condition score of N/A as it has low ecological value.
Linear Hedgerow Habitats		
Line of Trees	There are four lines of trees present on site, which predominantly form boundaries between fields and adjacent properties. Species present include ash, hawthorn (<i>Crataegus monogyna</i>), silver birch, sycamore, and willow (<i>Salix spp.</i>).	All four lines of trees present on the site are in moderate condition. Sections of two lines of trees (L1 and L2) will be lost as part of the development, however an additional eight lines of trees will be created across the site to compensate for this.
Built Linear Features	Dry-stone walls and fence lines were present on site, forming the site boundary and separating different parcels of land.	The metric allocates this habitat a condition score of N/A as it has low ecological value.
Linear River Habitats		
Other Rivers and Streams (Nun Brook)	Nun Brook was culverted through most of the woodland. Vegetation was present on the embankments either side and within the brook itself comprising occasional pendulous sedge (<i>Carex pendula</i>), cock's foot, Yorkshire fog (<i>Holcus lanatus</i>), and creeping buttercup.	The river was in fairly poor condition and will be retained in the development.

5 Biodiversity Enhancements

5.1 Bat Boxes

A total of 12 bat boxes are to be installed across the site. The bat boxes selected will provide a range of suitable conditions and target pipistrelle species that were confirmed present within the area during the data search for the PEA (Urban Green, 2023).

Externally mounted bat boxes are to be positioned on mature trees or newly constructed houses. Please refer to Table 4 for the bat box specifications examples. A bat box design of similar specification can be selected for the site.

Table 4 – Bat box specification

Bat Box Type	Image		Total Number of Boxes
Greenwoods Ecohabitats Two Crevice Bat Box Dimensions: External: 43 high x 21.5 wide x 6.8 deep Internal: 41 x 16.5 x 1.8 Weight: 6.75 kg			6
Greenwoods Ecohabitats Medium Hollow Bat Box Dimensions: External: 43 x 21.5 x 13.5 Internal: 41 x 16.5 x 8.5 Weight: 6.75			6

5.1.1 Positioning of Bat Boxes

Bat boxes must be positioned between 4–6m high and are most effective when located on a south-east to south-western facing aspect, as this will provide additional heat throughout the day. Bats prefer to change roosts to benefit from varying ambient temperatures, as such, bat boxes are to be clustered on trees in groups of two, with one box located on the south-western aspect and another on the south-eastern. Please refer to Appendix 1 for the Biodiversity Enhancements Location Plan.

5.1.2 Timing of Installation

As some trees and buildings assessed as having low to moderate potential for roosting bats will be lost as part of the development, it is recommended that bat boxes are to be installed prior to construction commencing, on existing trees.

5.1.3 Maintenance of Bat Boxes

Bat boxes are considered self-cleaning and require minimal maintenance once installed. The boxes are made of hard-wearing material that is generally long-lasting. Bat boxes should be checked periodically (e.g., every two years) to assess their use and the condition of the boxes. Section 2.4 includes the maintenance schedule.

If any boxes are identified as damaged or missing, they are to be replaced with a box of similar specification.

Note only those holding the appropriate Natural England Class 2 bat licence may open and inspect these boxes. It is an offence for anyone without this licence to open a bat box. If a bat box becomes occupied by a bird the nest must be left *in situ* until after the bird nesting season (March to September inclusive).

5.2 Bird Boxes





The development has the potential to enhance bird nesting opportunities through the provision of bird nest boxes. A total of 12 bird boxes are to be installed across the site.

Bird boxes come in several types and sizes, which vary in their suitability from species to species. Table 5 provides details of bird nest box types and the likely species they attract. Bird species that are known to inhabit the local area and readily utilise artificial nest boxes have been selected. Boxes of similar specifications as those detailed in Table 6 can be selected, in the case the example boxes are not available.

Table 5 – Bird nest box hole sizes and associated species

Box entrance hole size	Associated species
28mm	Great tit (<i>Parus major</i>), tree sparrow (<i>Passer montanus</i>), pied flycatchers (<i>Ficedula hypoleuca</i>)
32mm	House sparrow (<i>Passer domesticus</i>)
45mm	Starling (<i>Sturnus vulgaris</i>)
13cm high x 12cm wide	Barn owl (<i>Tyto alba</i>)

Table 6 – Bird nest boxes that can be bought from websites such as nhbs.com, habitat.co.uk or other online retailers

Bird box type	Image	Target Species	Number of boxes
<p>BilBao Woodstone Nest Box</p> <p><u>Specification</u> Height: 210mm Width: 305mm Depth: 120mm Entrance Hole Diameter: 28mm Weight: 6kg Material: Woodstone</p>		Coal tit, blue tit, great tit	4
<p>BilBao Woodstone Nest Box</p> <p><u>Specification</u> Height: 210mm Width: 305mm Depth: 120mm Entrance Hole diameter: Oval 32mm Weight: 6kg Material: Woodstone</p>		House sparrow, tree sparrow, great tit, blue tit, nuthatch	4
<p>Vivara Pro Woodstone Starling Nest Box</p> <p><u>Specification</u> Height: 385mm Width: 220mm Depth: 215mm Entrance hole diameter: 45mm Weight 7.4kg Material: Woodstone</p>		Starling	2
<p>Barn Owl Nest Box</p> <p><u>Specification</u> Height: 74cm Width: 59cm Depth: 50cm Depth of enclosed box: 34cm Entrance hole: 13cm high x 12cm width Weight: 8kg approx. Material: FSC certified exterior grade plywood</p>		Barn owl	2

5.2.1 Positioning of Bird Boxes

Bird boxes are most effective when positioned on a north-east to north-west facing aspect to prevent overheating during the summer nesting season. Care should be taken to make sure boxes are not angled in such a manner to allow rain to enter them. Nest boxes are to be affixed to vertical surfaces on retained