BIODIVERSITY ENHANCEMENT MANAGEMENT PLAN

JULY 2024

Hogshaw Farm,
Fairfield,
Buxton,
SK17 7HN

URBAN GREEN

QUALITY MANAGEMENT

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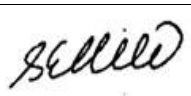
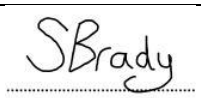
Prepared By:	Sarah Child	**Signature:**		**Qualifications:**	Biodiversity Net Gain Consultant
Checked By:	Shannon Brady	**Signature:**		**Qualifications:**	Biodiversity Net Gain Consultant

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02	21/03/2023	Updates to habitat classifications	SC	SB
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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 development of the site into a residential estate 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).

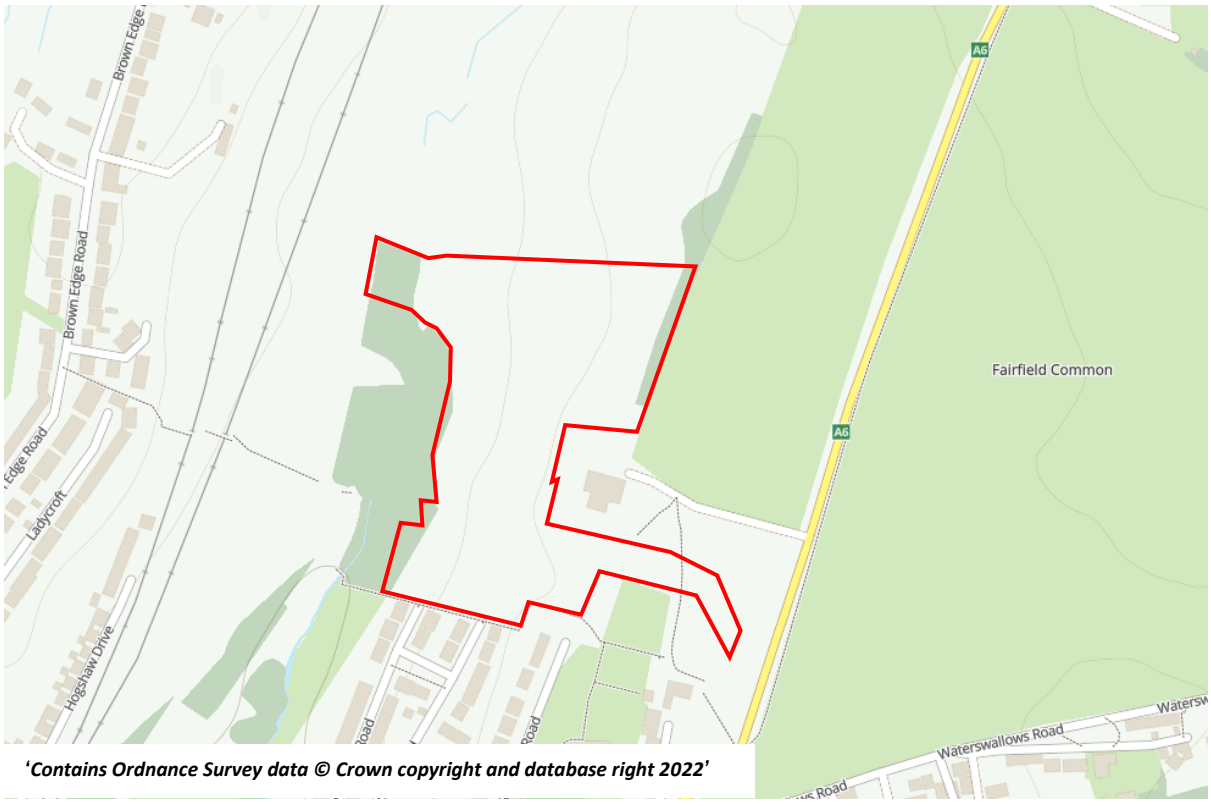

Figure 1 – Site Extent

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 (*Triturus cristatus*)	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 (*Erinaceus europaeus*)	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.
Badger (*Meles meles*)	Suitable habitat present	Yes	Six records of badger were returned through the data search. No evidence of badger was found, however there is suitable habitat present.
Brown hare (*Lepus europaeusî*)	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 (*Arvicola amphibius*)	None	No	On record returned for water vole, however, there is limited suitable habitat on site.
White-clawed crayfish (*Austropotamobius pallipes*)	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 (*Salmo trutta*) 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 (*Fallopia japonica*) and Himalayan balsam (*Impatiens glandulifera*) 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 (*Lolium perenne*), with occasional cock's foot (*Dactylis glomerata*), dandelion (*Taraxacum agg.*), and creeping buttercup (*Ranunculus repens*). 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 (*Fraxinus excelsior*), goat willow (*Salix caprea*), wych elm (*Ulmus glabra*), and cherry, sycamore (*Acer pseudoplatanus*). 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 (*Betula pendula*). 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 (*Crataegus monogyna*), silver birch, sycamore, and willow (*Salix spp.*).	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 (*Carex pendula*), cock's foot, Yorkshire fog (*Holcus lanatus*), 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 x6.8 deep Internal: 41 x 16.5 x1.8 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 (*Parus major*), tree sparrow (*Passer montanus*), pied flycatchers (*Ficedula hypoleuca*)
32mm	House sparrow (*Passer domesticus*)
45mm	Starling (*Sturnus vulgaris*)
13cm high x 12cm wide	Barn owl (*Tyto alba*)

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

Bird box type	Image	Target Species	Number of boxes
BilBao Woodstone Nest Box Specification Height:210mm Width: 305mm Depth:120mm Entrance Hole Diameter: 28mm Weight: 6kg Material: Woodstone		Coal tit, blue tit, great tit	4
BilBao Woodstone Nest Box Specification Height: 210mm Width: 305mm Depth: 120mm Entrance Hole diameter: Oval 32mm Weight: 6kg Material: Woodstone		House sparrow, tree sparrow, great tit, blue tit, nuthatch	4
Vivara Pro Woodstone Starling Nest Box Specification Height: 385mm Width: 220mm Depth: 215mm Entrance hole diameter: 45mm Weight 7.4kg Material: Woodstone		Starling	2
Barn Owl Nest Box Specification 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		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

trees at a minimum height of 3m. Please refer to Appendix 1 for the Biodiversity Enhancements Location Plan.

5.2.2 Timing of Installation

The bird boxes must be installed at the earliest opportunity in order to compensate for the disturbance of the on-site nesting habitat. Bird boxes can be installed at any time of the year. However, they must remain undisturbed throughout the bird nesting season (March to September inclusive) to avoid disturbing nesting birds and committing an offence under the Wildlife and Countryside Act 1981 (as amended). Section 2.4 includes the Schedule of Works.

5.2.3 Maintenance of Bird Boxes

The boxes are made of Woodstone, which have been selected due to their durability compared traditional softwood boxes.

The following maintenance measures are to be completed, following the installation of the boxes:

- Bird boxes will require periodic checking and cleaning, (e.g., once every two years).
- Unhatched eggs may be removed legally between September and January and must then be disposed of.
- Disused nests must be removed and cleaned using boiling water to remove parasites. Boxes should be left to dry before replacing the lid. Insecticides and flea powders must not be used.
- If any boxes are identified as damaged or missing, they are to be replaced with a box of similar specification.

Note bird boxes must only be opened and cleaned outside the bird nesting season (which is between March to September inclusive).

5.3 Hedgehog

The site is considered to have potential to support hedgehogs, therefore, hedgehog highways are to be installed across the site to improve connectivity. Additionally, hedgehog homes are to be installed within suitable areas for hedgehogs within the site to provide additional hibernation features.

Appendix 1 details the location of the proposed hedgehog homes to be installed within the site. If hedgehog homes are not available, brash/wood piles can be used instead in similar locations.

Specifications for hedgehog enhancements are detailed in Table 7.

Table 7 – Hedgehog enhancements that can be bought from websites such as britishhedgehogs.org.uk, arkwildlife.co.uk or other online retailers

Specification	Image	Number of homes
Hedgehog Home Approximately 23 x 52 x 40cm (9" x 20½ " x 16").		6
Hedgehog Highway Height: 13cm Width: 15cm Image for illustrative purposes only, sign not required		Within garden fences

5.3.1 Hedgehog Homes Locations

A hedgehog house contains a narrow or tunnel-like entrance, which is essential to prevent predators such as foxes and badgers gaining access to the hedgehog house. In addition, camouflaging the top and sides of house with soil and leaves can also help to reduce the chance of predation, ensuring that the entrance remains clear at all times for hedgehog access.

Hedgehog homes are to be placed out of direct sunlight and must not face the north or north-east aspects (to avoid cold winter winds) and where it will not be disturbed, such as against a wall, bank or fence (British Hedgehog Preservation Society, 2018).

To prolong the longevity, hedgehog homes must be emptied (if absent from hedgehog presence) annually in April or October, to reduce the infestation of fleas and ticks that can be transferred through nest use. If hedgehog presence is confirmed within hedgehog homes from initial inspection (upon gently removing the lid), then this hedgehog home must be exempt from the annual clean until the following year (subject to presence of a hedgehog).

If possible, the addition of hay or straw must be added to each hedgehog home for insulation and replaced after an annual clean has been completed. Further information is available on the Hedgehog Street website (https://www.hedgehogstreet.org/cleaning-out-boxes/), and within the Work Schedule located in Section 5.4.

5.3.2 Hedgehog Highway Locations

Hedgehog highways comprise small gaps within fences, approximately 13cm x 13cm. They are to be installed across the site creating a corridor for hedgehogs to commute across the site and into residential gardens. It is recommended that every fence within the development has a hedgehog highway gap included to facilitate full movement of hedgehog across the site.

5.4 Work Schedule

Key

	Recommended times when works can be conducted
	Times to avoid work

5.4.1 During Construction

Works	J	F	M	A	M	J	J	A	S	O	N	D
Erect boxes / Deploy hedgehog houses	Any time of year. All bird/bat/hedgehog boxes to be erected prior to the completion of the scheme.											

5.4.2 Post-Construction

Works	J	F	M	A	M	J	J	A	S	O	N	D
Bird box check and cleaning			Avoid bird nesting season									
Bat box checks												
Annual hedgehog house clean and replacement of bedding (if absent from hedgehog presence)												

Bird and bat box checks should be conducted in October of every other year to ensure that there is sufficient time for any repairs or replacements to be conducted.

6 Ecological Strategy

This section summarises the management strategy for each habitat proposed to be introduced within the final design of the scheme and the recommended management practices for habitats to be retained within the development. Each objective includes a target time for positive assessment provided to enable identification of failing management and trigger early intervention. Management plans have been included detailing management objectives for an initial 5-year period. Regular monitoring of the site against the management objectives will be conducted during the first five years of the project, and a review of the management strategies will be undertaken, with any updates or changes to the program incorporated for the next five years of the management plan.

The proposed landscape layout (Urban Green, 2024c), found in the Biodiversity Net Gain Report (Urban Green, 2024a), displays the final proposed habitats and their location on site. Areas which are classified as 'developed land, sealed surface' offer no ecological benefit and the ecological value of 'vegetated gardens' is highly dependent on how they are used by homeowners. Therefore, both habitats are automatically allocated condition scores of N/A and require no ecologically driven management.

6.1 Retained Linear Hedgerow Habitats

6.1.1 Line of Trees

There were four lines of trees present on the site which will all be retained in their entirety. Detailed management techniques for lines of trees are described within Table 8 along with the corresponding condition criteria. All of these lines of trees are in **moderate** condition; in order to maintain this condition, at least 3 of the condition criteria detailed in Table 8 are expected to be achieved. An annual schedule of works for the first 5 years post-development is detailed in Table 15 in Section 6.5.

Table 8 – Management Objectives for Line of Trees

Condition Assessment Criteria / objective	Management Activities	Benefit to environment	Target time for Positive Assessment
1. More than 70% of trees are native species	• Replace failed trees with new tree planting • Native species should be preferred for replacement planting. Chosen species should be consistent with the local species composition	Native trees are associated with higher overall species diversity and provide resources suited to native wildlife	From year 1
2. Tree canopy is predominantly continuous	• Where gaps in the canopy arise, new trees of appropriate size should be planted to fill these gaps • Only undertake pruning within the canopy, particularly where the crown would be reduced, where necessary	Continuous canopy cover forms an unbroken, linear corridor which facilitates the movement of wildlife between habitats and across landscapes	From year 1
3. Includes one or more mature	• Limit the use of damaging management practices e.g., herbicide use	Promotes healthy growth of trees to mature or veteran status. Mature	From year 1

	or veteran trees	• When trees reach maturity, appropriate corrective surgery may be necessary to sustain good health • Removal of diseased trees to prevent spread • Undertake regular arboricultural assessments based on recommendations in the AIA	and veteran trees offer more ecological niches and ecosystem services than younger trees	
4.	There is an undisturbed, naturally vegetated strip 6m either side	• Leave 6m strips adjacent to the line of trees unmanaged to allow a natural vegetated community to develop • In these areas, avoid activities which would cause disturbance, such as mowing, weeding, applying fertiliser, high levels of footfall • This is not achievable for all lines of trees on site due to location and so some lines of trees will automatically fail this criterion	An additional, natural habitat around the line of trees will act as a buffer between the trees and wider development and as a transition habitat for fauna	From year 1
5.	At least 95% of trees are in healthy condition	• Only undertake management activities where necessary • Limit use of herbicides around trees • Tree works/pruning should be undertaken by a qualified professional • Avoid cutting all specimens across the plot in a single period, particularly where this is likely to remove all flower/fruit interest for wildlife. • Removal of diseased trees to prevent spread • Ensure tree canopy is balanced and consistent with the natural structure for the species	Promotes healthy growth and supports growth to maturity or veteran status	From year 1

6.2 Created Area Habitats

6.2.1 Urban - Urban trees – Proposed Trees

A total of 275 (123 small and 152 medium) trees will be planted across the site, however 147 have been classified within separate habitats. The remaining 108 urban trees will be planted in the public open space, with twenty being within the Railway Land Hogshaw LWS. The mix incorporates both native and non-native species, such as silver birch, bird cherry (*Prunus padus*), pedunculate oak, hornbeam 'Frans Fontaine' (*Carpinus betulus* 'Frans Fontaine'), and field maple 'Streetwise' (*Acer campestre* 'Streetwise').

Detailed management techniques for new urban trees are described within Table 9 along with the corresponding condition criteria. The targeted condition for the new urban trees is **moderate**, with an expected target condition time of 27 years. In order to reach the expected targeted condition, at least 3

of the condition criteria must be achieved. As individual trees automatically pass criterion 2, this is not assessed. An annual schedule of works for the first 5 years post-development is detailed in Table 16 in Section 6.4.

Table 9 – Management Objectives for Urban Trees

Condition Assessment Criteria / objective	Management Activities	Benefit to environment	Target time for Positive Assessment
1. The tree is a native species	Replace failed trees like for like (according to planting scheme and landscapes)	Trees provide biodiverse habitats, with native trees supporting more native species	From year 1
2. The tree canopy is predominantly continuous	N/A	N/A	N/A
3. The tree is mature or veteran	• Limit the use of damaging management practices e.g., herbicide use • After 10-20 years, trees will reach semi-maturity and appropriate corrective surgery may be necessary. • Undertake regular arboricultural assessments based on formal recommendations (Urban Green, 2024d)	Mature and veteran trees are more effective than young trees at providing air filtration services and sequester carbon. Veteran trees provide additional niches for wildlife.	10 years
4. There is little or no evidence of an adverse impact on tree health by anthropogenic activities and no current regular pruning regime so the trees retain >75% of expected canopy	• Only undertake management activities where necessary • Limit use of herbicides around trees • Tree works/pruning should be undertaken by a qualified professional • Avoid cutting all specimens across the plot in a single period, particularly where this is likely to removes all flower/fruit interest for wildlife. • Ensure tree canopy is balanced and consistent with the natural structure for the species	Promotes healthy growth and supports growth to maturity.	From year 1
5. Micro-habitats for birds, mammals and insects are present	• Leave any micro-habitat features, such as ivy and loose bark, in place	Ensures diversity is maintained throughout by allowing the creation of additional habitat niches	By year 5

	• Where it is safe and appropriate, retain areas of dead wood • No management activities to take place during nesting season (February to August) • Avoid undertaking management activities on all trees in a single month period to retain important resources for wildlife. • Installation of bird and bat boxes in suitable locations on trees	which can be exploited by wildlife.	
6. More than 20% of the tree canopy area is oversailing vegetation beneath	• Leave a 2m unmown buffer zone around each tree to allow natural succession of surrounding vegetation • No use of herbicides within this zone • Periodic removal of non-native invasive species (Appendix 2)	Creates a buffer habitat around trees to allow movement of wildlife and increases diversity of flora	From year 1

6.2.2 Urban - Introduced Shrub

Areas of introduced shrub containing different species mixes will be created within the public space to improve the visual amenity of the area. Within the landscape proposals, the introduced shrub mixes are classified as 'Proposed Ornamental Shrub and Herbaceous Planting' and 'Proposed Semi-native Shrub Planting,' and include species such as Japanese quince (*Chaenomeles japonica*), creeping willow (Salix repens), and spurge-laurel (*Daphne laureola*).

Planting will provide a positive visual impact but has limited value as a habitat. Introduced shrub is automatically assigned a condition score of **N/A** within the metric and, due to the ornamental nature and limited ecological value that this habitat type provides, only basic aesthetic management is required.

6.2.3 Heathland and Shrub - Mixed Scrub

Blocks of native mixed scrub habitat will be planted within the areas of wildflower meadows, to the east and west of the site, adding diversity to these habitats. These mixes are classified as 'Proposed Native Shrub Planting' and 'Proposed Woodland Understory Planting' in the landscape proposals. Species such as dog wood (*Cornus sanguinea*), elder (*Sambucus nigra*), guelder rose (*Viburnum opulus*), hazel (*Corylus avellana*), silver birch, bird cherry and rowan (*Sorbus aucuparia*) will be planted in mixed groups to create this habitat.

Detailed management techniques for new mixed scrub are described within Table 11 along with the corresponding condition criteria. The expected condition for all areas of mixed scrub is **poor**, with an expected target condition time of 1 year. Management practices should aim to produce a habitat which