

BOW17.1593 Wilson Road, Huyton: Ecological Enhancement Plan

Background Information

Planning permission has been granted for the demolition of existing buildings and redevelopment of a site at 35 Wilson Road within Huyton Business Park (Application number: 25/00205/FUL). The development aims to add to the storage capacity of the site comprising new warehouses/storage units, associated parking, landscaping and new vehicular access.

The site is located within Knowsley, Central Merseyside, and comprises mostly hard standing and buildings, with patches of spare ephemeral vegetation, scrub and trees at the site boundaries, with Logwood Mill Brook to the north-eastern edge. The surrounding land is predominantly a business park, with warehouses, scattered trees and small areas of woodland alongside Logwood Mill Brook. Through Logwood Mill Brook, the site is connected to the wider area, with the closest greenspace 250 m to the north.

A previous ecology report supporting the planning application (Huyton Business Park Preliminary Ecological Appraisal-FINAL update 29.04.2022') recommended the following:

- Scrub should be retained where possible; removal will be replaced with native species, with low intensity management regimes;
- Mature trees/woodland should be retained where possible, and root protection areas (RPAs) should be implemented during construction. Felled trees should remain in-situ or moved to an appropriate place on-site. Felled trees should be replaced in the proportion of two to every one lost of native species;
- Japanese knotweed and Himalayan balsam INNS should be removed, alongside non-native cotoneaster and buddleia;
- Lighting schemes should be designed in accordance with the appropriate guidance to minimise impacts on foraging bats;
- Two bat boxes installed (see BOW17.1593 Condition Discharge 8_Batbox Plan);
- Holes will be created in perimeter fencing to allow for hedgehogs, as well as retaining wood piles from felled trees and creating hedgehog houses to the east of the site;
- Five open-fronted bird nest boxes to be installed;
- Planting flower rich vegetation including night flowering species; and
- Reasonable Avoidance Measures (RAMs) and mitigation during works for species during works, including water vole (to be detailed in the CEMP).

Biodiversity Enhancement

The following are proposed to be integrated within the development design.

The recommendations below aim to ensure the site aligns with BREEAM credits LE 04 (Enhancement of ecological value) and LE 05 (Long term ecology management and maintenance).

As part of the planning application the following conditions in relation to bats were included:

Condition 8:

“No part of the development hereby permitted shall be occupied until details of the number and location of bat boxes to be incorporated into the scheme have been submitted to and approved in writing by the Local Planning Authority. The bat boxes shall be installed in accordance with the approved details prior to the first occupation of the building and shall be retained at all times thereafter.”

Reason: In the interests of biodiversity conservation and to comply with Policy CS8 of the Knowsley Local Plan Core Strategy, adopted January 2016.”

Policy CS8 – Green Infrastructure (Knowsley Local Plan Core Strategy)

Policy CS8 sets out that development within Knowsley is expected to protect, manage and enhance the existing Green Infrastructure network and its beneficial functions. To achieve this, the Local Plan confirms that planning powers and other interventions will be used to:

- (a) *Protect and enhance strategically important areas of greenspace; and*
- (d) *Protect, enhance and/or introduce biodiversity within existing Green Infrastructure, including through integration into the design of new development and public realm projects.*

Within this policy framework, Prescott (Logwood) Brook (which runs adjacent to the site boundary) is identified in paragraph 5.94 as a locally important water body and a strategically significant Green Infrastructure asset. Development in proximity to this feature is therefore expected to demonstrate a clear avoidance of ecological harm where possible, and contribute positively to habitat quality, connectivity, and ecosystem function.

The separate document BOW17.1593 Condition Discharge 8_Batbox Plan has been created in order to discharge these conditions. It also provides details on a lighting strategy, to ensure bat boxes are placed effectively and to maximise potential use, along with enhancing the ecological quality of the adjacent brook and woodland habitat, in line with section (d) of policy CS8. Habitats created to the east of the site, particularly woodland and scrub, will be of importance to this strategy.

Habitats

Amenity Areas

The landscape plan incorporates amenity areas into the design of the redevelopment. Biodiversity value can be incorporated into these spaces using species-rich, structurally diverse planting, which incorporates a reasonable proportion (>60%) of native species with local provenance. The below points set out a range of options for different planters and lists recommended species native to the UK (see Table 1 for suggested species list):

- Tall planters with trees and shrubs may be used to screen and segregate different areas across the amenity areas whilst providing shelter and cover for birds and insects. Recommended species include those which provide evergreen cover, alongside berry bearing shrubs such as hawthorn, spindle (*Euonymus europaeus*), elder, dogwood (*Cornus sanguinea*), juniper (*Juniperus communis*), buckthorn (*Rhamnus cathartica/frangula*) and guelder rose;
- Climbers can be used to add height and visual/structural diversity to the periphery of amenity spaces. Native and naturalised species include honeysuckle, clematis (*Clematis vitalba*), hop (*Humulus Lupulus*) and ivy (*Hedera helix*); and
- Floral planters should favour species with a varied and/or long flowering season to attract bees, butterflies and other pollinators. Early flowering include English bluebell (*Hyacinthoides non-scripta*), primrose (*Primula vulgaris*), sweet violet (*Viola odorata*) and the naturalised winter aconite (*Eranthis hyemalis*). Mid-season nectar plants include lady's bedstraw (*Galium verum*), bell heather (*Erica cinerea*), red campion (*Silene dioica*), teasel (*Dipsacus fullonum*), ox-eye daisy (*Leucanthemum vulgare*) and common mallow (*Malva sylvestri*). Later flowering natives include ivy, yarrow (*Achillea millefolium*), foxglove (*Digitalis purpurea*) and marjoram (*Origanum vulgare*). The non-native buddleia (*Buddleja davidii*) is also beneficial for attracting bees and butterflies.

Table 1 – Suggested species list for amenity areas (beneficial for pollinators) and flowering times

Common Name	Scientific Name	Tall Planters	Climbers	Floral Planters	Early Season	Mid-season	Late season
Spindle	<i>Euonymus europaeus</i>	*				*	
Elder	<i>Sambucus nigra</i>	*			*		
Juniper	<i>Juniperus communis</i>	*					
Guelder Rose	<i>Viburnum opulus</i>	*				*	
Honeysuckle	<i>Lonicera periclymenum</i>		*				*
Clematis	<i>Clematis vitalba</i>		*				
English Bluebell	<i>Hyacinthoides non-scripta</i>			*	*		
Sweet violet	<i>Viola odorata</i>			*	*		
Bell heather	<i>Erica cinerea</i>			*			
Oxeye daisy	<i>Leucanthemum vulgare</i>			*		*	
Ivy	<i>Hedera helix</i>		*			*	*
Marjoram	<i>Origanum vulgare</i>			*			*

Any open greenspaces within the site could be also enhanced through the creation of biodiverse grassland habitats by:

- Planting of seed mix with focus on fine grasses, especially fescues (*Festuca spp.*), meadow-grasses (*Poa spp.*), and bents (*Agrostis spp.*) with the aim of enhancing habitat.
- Inclusion of a species-rich mix that is tolerant to regular management (e.g. mowing) for areas of amenity grassland. This can be achieved through:
 - Use of a Flowering Lawn Mix (EL1) which responds well to regular management, whilst providing resources for pollinators;
 - Implementing a mowing regime to manage the species-rich grasslands for biodiversity; and
 - Planting wildflower features.

Species-Rich Grassland

There is existing grassland along the verges to the west of the site, and the landscaping around the periphery of the car parks will incorporate biodiverse grassland. The enhancement of existing grassland areas and the creation of new grassland areas will be achieved through the use of appropriate species seed mixes of native grasses and wildflowers. A suitable seed mix for this location and above purpose would be the Emorsgate EM1-3 commercially available from <https://wildseed.co.uk>. This general meadow mix contains yellow rattle (*Rhinanthus minor*), a hemi parasitic species that suppresses the vigour of dominant species—typically grasses and clovers—thereby creating opportunities for a wider range of plants that struggle to compete with rank vegetation. Seeding should be done in Autumn prior to first winter frost on prepared ground.

Incorporating a variety of wildflower mixes will further benefit the bird and invertebrate diversity on the site; the EM3F wildflower mix also recommended for sowing.

Grassland management should aim to encourage a range of plant species with different flowering seasons to increase the abundance and diversity of invertebrates within the site, with varied sward height and low intensity cutting regimes. Cutting and mowing should be done after summer and before early spring outside nesting bird season (March-September inclusive). In the absence of grazing, cutting should be done on a rotational basis and arisings collected. Cutting should be directional and the cutter set to a height of > 15 cm to avoid harming any small mammals or amphibians. No fertilisers or pesticides will be used within the grasslands or within close proximity, to avoid creating nutrient-rich conditions that would result in a loss of less competitive plant species, and to ensure protection of the invertebrate diversity.

Trees and Scrub

The loss of trees/woodland and scrub within the site will be avoided wherever possible; however, the development may result in the removal of broadleaved trees and/or woodland to the east/south-east of the site, alongside dense scrub. Root Protection Areas (RPA's) will be enforced at all times to protect existing trees and hedgerows.

Felled trees will be left to decay naturally in-situ or moved to an area where they can do so on-site without disturbing the development, for example within the woodland to the east.

Compensation for the loss of scrub and trees will comprise the planting of locally sourced native tree and scrub species. The species will comprise of a diverse mix of native species appropriate to the locality, for example; oak (*Quercus robur*), hawthorn, hazel (*Corylus avellana*), holly (*Ilex aquifolium*), birch sp. (*Betula sp.*), elder (*Sambucus nigra*), rowan (*Sorbus aucuparia*), guelder rose (*Viburnum opulus*), wild cherry (*Prunus avium*) and crab apple (*Malus sp.*). Planting will be preferably based on whips of local provenance. Berry bearing species are particularly beneficial, providing foraging habitat for birds. See Table 2 for more recommended species. Approximately 30 new trees and will be planted, alongside scrub, and any trees removed will be replaced two for one. Any trees which fail during the site lifetime will be replaced like for like. Where possible tree and scrub cover should be allowed to become dense, particularly to the east of the site, with minimal intervention and management.

Table 2 – Acceptable tree/scrub species for native planting

Common Name	Scientific Name	Lowland	Acid	Neutral	Alkaline	Damp	Dry
Alder	<i>Alnus glutinosa</i>	*	*	*		*	
Silver Birch	<i>Betula pendula</i>	*		*	*		*
Hazel	<i>Corylus avellana</i>	*		*	*		*
Hawthorn	<i>Crataegus monogyna</i>	*		*	*		*
Ash	<i>Fraxinus excelsior</i>	*		*	*		*
Holly	<i>Ilex aquifolium</i>	*		*			*
Honeysuckle	<i>Lonicera periclymenum</i>	*	*	*	*		*
Crab Apple	<i>Malus sylvestris</i>	*		*	*		*
Wild Cherry	<i>Prunus avium</i>	*		*	*		*
Blackthorn	<i>Prunus spinosa</i>	*		*	*		*
Pendunculate Oak	<i>Quercus robur</i>	*		*	*		*
Field Rose	<i>Rosa arvensis</i>	*		*	*		*
Dog Rose	<i>Rosa canina</i>	*		*	*		*
Elder	<i>Sambucus nigra</i>	*	*	*	*		*
Rowan	<i>Sorbus aucuparia</i>	*	*	*	*		*
Guelder Rose	<i>Viburnum opulus</i>	*		*		*	

Species-Rich Hedgerows

New species-rich hedgerows will be introduced within the site to maximise biodiversity and help create wildlife corridors connecting the site with hedgerows and treelines in the wider landscape. These hedgerows will run along Wilson Road to the west, along the site to the south and around areas of amenity space to the north-east and south-west of the site. The hedgerow along Wilson Road will incorporate existing trees, while additional trees will be planted in the hedgerows around amenity areas to create species rich hedgerows with trees. Existing hedgerows/line of trees to the north and south of the site (off-site) will be retained and RPAs will be in place throughout works.

The following planting recommendations aim to create species-rich hedgerows that will provide a source of flowers and fruit, supporting a variety of birds, mammals and invertebrates:

- The hedgerow mix should include a minimum of five species;

- Suitable hedgerow species include hawthorn, blackthorn; guelder rose, hazel, dog-rose, and elder;
- Suitable hedgerow trees include those in table 2; and
- Whips must be of local or regional provenance.

The following management recommendations should be considered:

- Best practice guidance is to cut hedges in January or February every other year (or less frequently);
- Fencing may be utilised to protect establishing hedgerows in public areas;
- Ideally allowing a 2 m margin of vegetation to be left at the base of the hedgerow, to be cut on a 2/3 year rotation only, targeting different sections each year, would provide maximum protection for wildlife (or as large a margin as possible);
- Hedges should be allowed to grow taller than 1m, as taller hedges provide better for wildlife; and
- Allow hedgerow trees to develop and include appropriate native species.

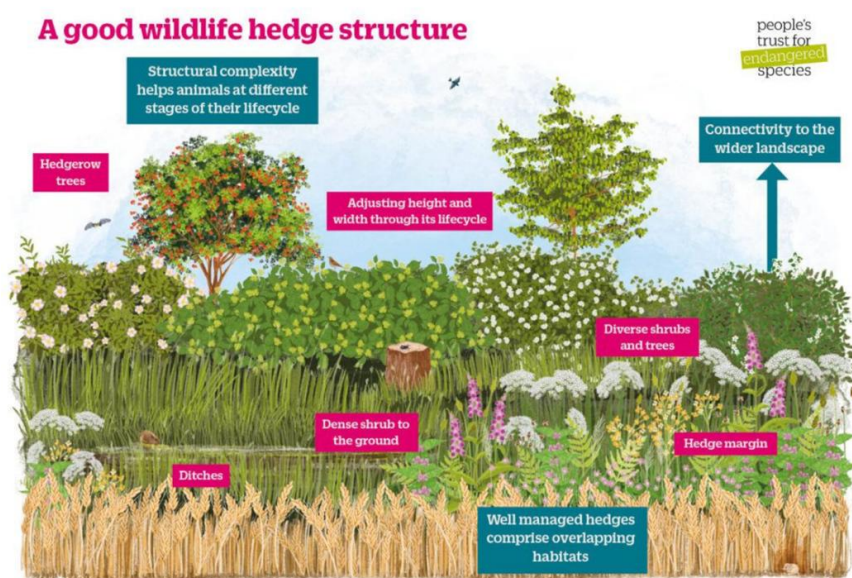


Diagram 1: A good wildlife hedge structure. People's Trust for Endangered Species (2025)
<https://ptes.org/hedgerow/hedge-structure/>

Further guidance on hedgerow creation and management is available at: <https://www.woodlandtrust.org.uk/plant-trees/managing-trees-and-woods/hedge-planting-and-maintenance/>.

Species

Hedgehogs

The habitats established through the planting scheme may be used by hedgehog for foraging and shelter. This can be further encouraged through installation of the following:

- Retaining wood piles from felled trees and scrub must be removed from areas with ongoing works immediately and placed on-site in sheltered areas to attract invertebrates and fungi, providing a good local food source for hedgehogs and possible nesting sites; and
- Provision of artificial or natural hedgehog boxes, located in quiet undisturbed areas with dense ground covering vegetation, preferably against the broadleaved woodland. For example, logs may be arranged to leave an appropriately sized hole for a hedgehog to nest in (big enough for the hedgehog and its nest) and covered with masses of twigs and leaves. See <https://www.nhbs.com>.

Amphibians and Reptiles

Where ground flora or trees/scrub need to be cleared during site management, it is advisable to utilise the vegetation to construct habitat piles (see Hedgehogs section). These piles may provide refuge to small mammals, amphibians and reptiles from predators and weather, invertebrates and fungi, thereby enhancing habitat availability and foraging opportunities while mitigating biodiversity loss. Piles could be created within the vicinity of Logwood Mill brook to provide winter shelter for amphibians and reptiles using vegetation removed during site clearance.

The habitat piles should be situated in a location that will not be disturbed and is not prone to flooding, such as the north-east of the site, and constructed using dry wood, brash, straw and dead leaves. Heavier materials should be placed at the bottom of the pile, with other materials loosely placed on the outer edges to allow for crevices and access, with new material added every 1-2 years as necessary. Management of vegetation near to the habitat piles should be undertaken using hand tools.

Invertebrates

The habitat creation and management enhancements should enhance the site for invertebrates. No pesticides/insecticides will be used on site during management, and planting will be designed to encourage invertebrates (see Bats and Habitats section). Organic matter collected during site creation and management should be allowed to decay naturally to create habitat for invertebrates. Moist dead wood piles could be constructed in a similar way to dry dead wood piles, but situated in damper, shadier areas to encourage a wider variety of invertebrates and fungi. The piles should remain in the same place, with materials added every 1-2 years as necessary.

INNS

Himalayan balsam, Japanese knotweed, cotoneaster and buddleia have been recorded within the Site and are listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended by the Nature Conservation Scotland Act 2004 and the WANE Act 2011). As such it is an offence to plant or otherwise cause these species to grow in the wild.

An Invasive Non-Native Species Management Plan must be produced detailing working methods and treatment options to remove invasives from the site and prevent the spread within and without the site. The Species Control Provisions Code of Practice (DEFRA, 2017) should be adhered to; and an exclusion zone applied around each stand/plant.

Under the Environmental Protection Act (1990) Sections 33 and 34, Japanese knotweed must be treated as controlled waste. As such all arisings and potentially contaminated soil from the plants must be disposed of in an appropriate manner to ensure that the waste does not cause pollution of the environment.

Invasive species eradication will enhance and protect the site from future degradation.

Birds

The survey completed by Bowland Ecology identified suitable nesting and foraging habitat for birds consisting of scrub, tall ruderal vegetation, trees and hedgerows.

The installation of bird boxes will create nesting opportunities to compensate for the loss of any of these habitats. Five open fronted nest boxes with variable entrance hole sizes to accommodate a variety of bird species will be located within and/or adjacent to the site. Suggested locations for the bird boxes are shown in Appendix 1. Tree, scrub, grassland and hedgerow planting should provide further nesting and additional habitat for birds.

Bats

The survey completed by Bowland Ecology found that the site offered potential for roosting, foraging and commuting bats. Two 2F Universal Schwegler Bat Boxes are to be installed as part of condition discharge 8 (see BOW17.1593 Condition Discharge 8_Bat Box Plan) for further details on bat box installation.

Native planting to increase nocturnal invertebrate populations on-site will enhance the site foraging bats (Detailed in Habitats section), by increasing prey availability.

Where feasible, any greenspaces within the site could be enhanced for nocturnal invertebrates and thus foraging bats, through the following measures:

- Including night-flowering native plant species in landscaping to attract bat prey, such as Hemp agrimony (*Eupatorium cannabinum*), soapwort (*Saponaria officinalis*), and evening primrose (*Oenothera biennis*). Further information is available at <https://www.bats.org.uk/advice/gardening-for-bats/bed-and-breakfast>.
- Incorporating a range of plant species with different flowering seasons to make sure there is food from early spring (when bats come out of hibernation) to late Autumn (when bats are building up their fat reserves in preparation for going into hibernation);
- Ensure a variety of flower shapes and sizes, that are pale in colour, to increase the abundance and diversity of nocturnal invertebrates within the site.

Lighting

Head Office: Unit 8, Second Floor, Holmes Mill, Clitheroe, BB7 1EB; **Scottish**

Office: 218 Wallace Street, Glasgow, G5 8AE 01200 446777

www.bowlandecology.co.uk



The site is currently of low value to foraging and commuting bats due to the significant flood lighting, which offers a good opportunity for enhancement of the site for bats within the new design. Boundary habitats including woodland and a watercourse linked to wider semi-natural areas, likely provide quality habitat in an otherwise industrial area.

Unnecessary lighting will be avoided in foraging areas and commuting corridors, including the eastern boundary of the site. Any new lighting schemes will be designed in accordance with the with ILP Guidance Note 08/23: *Bats and Artificial Lighting at Night*, BS 42020¹, to minimise the impacts on, and enhance the site for, roosting, foraging, and commuting bats. This also will benefit other species affected by artificial lighting. The following measures listed below, are some suggestions which would significantly enhance the site and adjacent habitats for bats, should they be factored into the lighting strategy:

Mitigation and Enhancement Objectives

- Prevent illumination of bat boxes, treeline boundaries, and adjacent off-site habitats such as Logwood Mill Brook, which will enhance the site for bats;
- Ideally, aim to maintain light levels at <1 lux at identified sensitive receptors (i.e. bat boxes and boundary habitats, such as woodland surrounding Logwood Mill Brook to the east), adhering to ILP recommended thresholds; and
- Where possible, ensure that the operational lighting scheme does not increase skyglow, glare, or lateral light spill beyond the industrial footprint.

Lighting Design Principles

Use of Warm-Temperature, Low-Intensity Lighting

- All external lighting shall use warm-spectrum LEDs with colour temperatures ≤ 2700 K, as recommended by ILP guidance to reduce blue-light content that is most disruptive to bats;
- If a red light component² could be utilised, this will enhance the site significantly for bats and other nocturnal wildlife; and
- Luminaires could be specified at the lowest feasible lumen output required for safe industrial operation.

Directional and Targeted Lighting

- Luminaires shall be fitted with directional optics, cowls, or hoods to ensure light is directed downward onto active working areas only;

¹ <https://theilp.org.uk/resource/gn08-bats-and-artificial-lighting-pdf.html>

² <https://www.conservationevidence.com/actions/2021>

- Upward light output ratio (ULOR) = 0%, where possible; and
- All lighting columns shall be angled and positioned to ensure illumination is kept away from vegetation boundaries.

Shielding and Baffles

- Where any lighting is located within 20 m of sensitive habitat, consider full-height baffles or rear louvres to prevent lateral light spill and confine illumination to hardstanding areas.

Spatial Lighting Strategy

Dark Corridors and No-Light Zones

- Dark corridors maintained along:
 - The site perimeter vegetation (i.e. woodland, tree lines);
 - Log Mill Brook; and
 - Existing or proposed locations of bat boxes.
- Predicted lux levels within these corridors should be $\leq 0.5\text{--}1$ lux, in line with ILP sensitivity zones, where possible.

Lighting Setbacks

- A minimum 10–20 m offset between lighting columns and boundary vegetation shall be implemented wherever feasible; and
- Where this distance cannot be achieved, additional shielding and lower mounting heights may be used to compensate.

Mounting Heights and Pole Design

- All lighting ideally installed at the lowest practicable mounting height, reducing the radius of illumination and skyglow; and
- Typical height range will ideally be 4–6 m, unless operational safety requires otherwise.

Operational Controls

Timers and Curfews

- Lighting to be controlled via automatic timers and photocell sensors to ensure illumination is restricted to essential operational periods only, where feasible; and

- Outside security lighting to operate on PIR / motion sensors, avoiding continuous illumination overnight where possible.

Adaptive Lighting

- During low-activity periods, lighting may operate at reduced output levels (e.g., dimmed to 30–50%).

Bat Box Integration

Placement of Bat Boxes in Dark Zones

- All bat boxes will be installed within dark corridors, on mature trees or buildings where illumination levels remain below 1 lux; and
- No lighting unit will be directed toward any bat box location.

Document Title: BOW17.1593 Wilson Street, Huyton Ecological Enhancement Plan_V3	Author: Felicity Davies BSc (Hons)	Version: 3	Date: 18h.12.2025
---	------------------------------------	------------	-------------------

References

Institution of Lighting Professionals (2023) *Guidance Note GN 08/23: Bats and Artificial Lighting at Night*. Available at: <https://theilp.org.uk/resource/gn08-bats-and-artificial-lighting-pdf.html> (Accessed: 26 November 2025).

The Species Control Provisions Code of Practice England (2017), DEFRA [https://www.nonnativespecies.org/assets/Document-repository/60409 DEFRA SCP Print pdf.pdf](https://www.nonnativespecies.org/assets/Document-repository/60409_DEFRA_SCP_Print_pdf.pdf)

Appendix 1 – Eco-mitigation Feature and Enhancement Location Plan



Appendix 2 – Establishment and Management Schedule for Habitat Creation

Objective	Year		1	2	3	4	5
	Action	Timing					
Objective 1: Retain and Improve Tree/Scrub/Hedgerow Provision	Ensure root protection areas of retained trees.	At all times	Yes	Yes	Yes	Yes	Yes
	New scrub, hedgerows and trees planted and managed.	Plant between November and March and cut in January and February (outside breeding bird season) (if necessary).	Yes	Yes	Yes	Yes	Yes
	Weed control around young trees and herbivore protection.	When necessary.	Yes	Yes	Yes	No (unless deemed necessary)	No (unless deemed necessary)
Objective 2: Grassland Creation/Management	Grassland planted and managed	Seed in Autumn prior to first winter frost on prepared ground. Cutting and mowing after summer and before early spring outside nesting bird season (March-September inclusive). Cutting must be done on a rotational basis and arisings collected.	Yes	Yes	Yes	Yes	Yes

Objective 3: Bat box installation	Bat boxes installed during the construction phase.	During construction phase.	No	No	No	No	No
Objective 4: Bird nest box and natural/man-made hedgehog houses and brash pile installation	Bird boxes installed during the construction phase. Natural/man-made hedgehog houses and brash pile installation and maintenance.	Construction phase. Brash piles to be added to from off cuts during site maintenance.	Yes (off cuts added if necessary).	Yes (off cuts added if necessary).	Yes (off cuts added if necessary).	Yes (off cuts added if necessary).	Yes (off cuts added if necessary).
Objective 5: Provision of habitat for pollinators	New species to benefit pollinators to be planted in amenity areas and managed (See Table 2 for suggested species list).	Plant in autumn prior to first winter frost, on prepared ground to avoid harsh conditions	Yes	Yes	Yes	Yes	Yes

Monitoring: Assessment of the efficacy of the management aims, objectives and prescriptions	A monitoring visit is to be carried out in year 3 to assess the establishment of the tree and shrub planting, the establishment of habitat for pollinators and the success of the wildlife box provision. Findings will be reviewed, and observations fed back into the management plan. Any notable species records resulting from monitoring visits will be passed onto the local environmental records centre.	N/A	N/A	June - August	N/A	N/A	June - August
--	--	-----	-----	---------------	-----	-----	---------------