

**Whitcher Wildlife Ltd.
Ecological Consultants.**



LEAPINGS VIEW, THURLSTONE.

OS REF: SE 2272 0312.

**BIODIVERSITY AND ENHANCEMENTS
MANAGEMENT PLAN.**

Ref No: 240536/BEMP.

Date: 6th February 2025.

TABLE OF CONTENTS.

	Page Number
1. INTRODUCTION.	3
2. SUMMARY OF FINDINGS.	4
3. SUMMARY OF POST DEVELOPMENT HABITATS.	8
4. ON-SITE BIODIVERSITY AND ENHANCEMENT MANAGEMENT PLAN DETAIL.	11
5. BAT AND BIRD BOX SCHEME.	19

1. INTRODUCTION.

1.1. An application has been submitted and approved for a residential development on the land at Leapings View, Leapings Lane, Thurlstone.

1.2. Condition 22 of the planning permission requires a Biodiversity Enhancement Management Plan (BEMP), as outlined below.

A Biodiversity Enhancement Management Plan (BEMP), completed by a suitably qualified ecologist should be submitted to the Local Planning Authority as part of the reserved matters/full application. The BEMP should be based upon measures as set out within the Biodiversity Net Gain documents/Rev 1 September 2023 and will be supported by an updated Biodiversity Net Gain assessment and biodiversity metric calculation. The BEMP should also include the following:

- A recent landscape plan detailing the location of mitigation works and the size of each habitat area to be enhanced and/or created;
- Management aims and prescriptions detailing the methods required to create and/or enhance each habitat at the required quality for a period of 30 years;
- A timetable of delivery for each habitat created and/or enhanced;
- A schedule of ecological monitoring for a minimum 30 year period, identifying when key indicators of habitat maturity should be achieved;
- Details on the monitoring of habitats and the provision of a report, which shall be provided to the LPA on the 1st November of each year of monitoring (years one-three after creation, years five, and ten and every ten years thereafter), which will assess the condition of all habitats created and/or enhanced and any necessary management or replacement/remediation measures required to deliver the Net Gain values set out in the BEMP for each habitat;
- A schedule of actions to be undertaken in case signs of failing are identified; the schedules must include details of technique(s) to be used, equipment to be used, roles and relevant expertise of personnel and organisations involved and timing of actions including submission of monitoring report to the Council.
- The BEMP will also include other enhancement measures, such as the installation of integral bat and nest boxes on proposed buildings and access points for hedgehog within boundary features.

1.3. This document is designed to satisfy this planning condition.

2. SUMMARY OF FINDINGS.

2.1. The Surveyed Area.

2.1.1. The survey area is an area of land off Leapings Lane in Thurlstone, which includes a house, a number of outbuildings and barns and a farmyard with the River Don along the northern boundary.

2.1.2. The aerial photograph below shows the survey area.



2.1.3. The site is bordered by grazing land and pockets of woodland with residential housing in the wider surrounding area. The aerial photograph below shows the survey area and the wider surrounding area.



2.2. Description of Habitats.

The habitats on and adjacent to the site are: -

- w1g - Other broadleaved woodland
- g4 - Modified grassland
- u1c - Artificial unvegetated unsealed surface.
- u1f - Sparsely vegetated land
- h3h - Dense Scrub
- u1c - Built Linear Feature - Wall
- u1c - Built Linear Feature - Fence
- u1b5 - Building

2.3. Survey Timings.

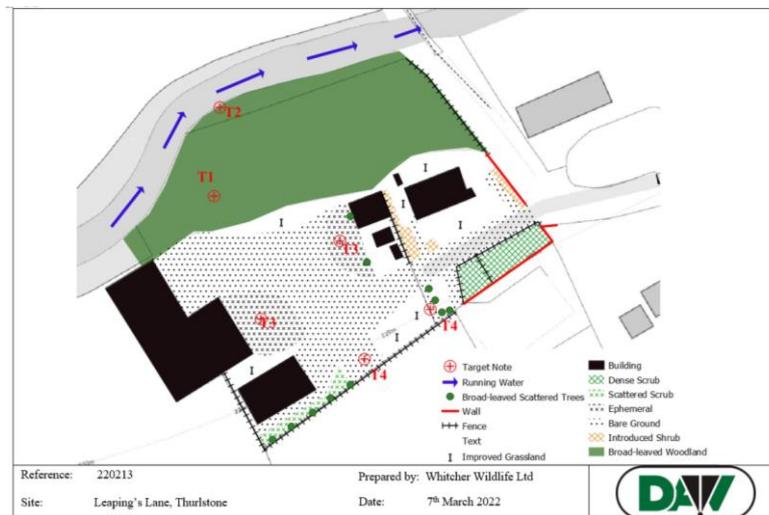
2.3.1. Following initial bat surveys of the houses, a Preliminary Ecological Appraisal (PEA) of the site was carried out by Whitcher Wildlife Ltd on 7th March 2022. A further survey was undertaken on 19th May 2022 to further up-date the situation on the site and in particular to carry out a bat roost assessment survey of the semi-detached dwellings and associated outbuildings.

2.3.2. A further Biodiversity Net Gain report was prepared in September 2023 and that included an extended area around the original site where biodiversity measures could be provided.

2.4. Summary of Survey Results.

2.4.1. The site comprises two semi-detached houses with a surrounding lawn and a disused farmyard comprising old and largely derelict buildings and areas of bare ground and accumulated materials. There is a woodland strip along the northern side of the site, bordering the River Don.

2.4.2. The map below shows the baseline habitats on the development site. This was originally presented in Phase I Habitat format but has now been converted to UK Hab format as shown in the pre-development and post-development plans in the Appendices of this report.



2.4.3. An adjacent area of land will be utilised to offset the biodiversity units lost on the development site. This is currently a grassland field and an additional barn.

2.4.4. Biodiversity calculations for the development site were initially carried out using the DEFRA Metric 2.0. These calculations have been upgraded in line with the Statutory Biodiversity Metric, including the condition assessments provided in the habitat descriptions. The baseline for the site pre-development was calculated at 2.89 habitat Biodiversity Units (Bu), as shown in the tables below.

Habitat Type	Extent (ha)	Distinctiveness	Condition Assessment	Biodiversity units
Modified grassland	0.112	Low	Poor	0.22
Mixed scrub	0.031	Medium	Moderate	0.25
Vacant or derelict land	0.042	Low	Poor	0.08
Vegetated garden	0.011	Low	Condition assessment N/A	0.02
Developed land; sealed surface	0.064	V.Low	N/A - Other	0.00
Artificial unvegetated land	0.163	V.Low	N/A - Other	0.00
Other woodland broadleaf	0.277	Medium	Moderate	2.22
Individual tree	0.0122	Medium	Moderate	0.39
Total (excl. trees)	0.696			2.89

2.4.5. To provide additional biodiversity, an additional 0.514Ha immediately adjacent to the western and southern site boundaries has been made available. The baseline for this area pre-development was calculated at 1.8 habitat Biodiversity Units (Bu), as shown in the tables below.

Habitat Type	Extent (ha)	Distinctiveness	Condition Assessment	Biodiversity units
Other neutral grassland	0.45	Medium	Poor	1.8
Developed land sealed surface	0.064	V.Low	N/A - Other	0.00
Total (excl. trees)	0.225			1.8

3. SUMMARY OF POST DEVELOPMENT HABITATS.

3.1. The plan below shows the proposed landscaping plan for the development site and the adjacent area.



3.2. The site will predominantly comprise four new dwellings and gardens.

3.3. A 10m wide strip of the existing broadleaved woodland alongside the River Don will be retained and enhanced to achieve a higher condition assessment.

3.4. This will result in 2.16Bu of area habitat post development within the red line boundary.

Habitat Type	Extent (ha)	Distinctiveness	Condition Assessment	Biodiversity units
Vegetated garden	0.3	Low	Condition assessment N/A	0.58
Developed land; sealed surface	0.245	V.Low	N/A - Other	0.00

Other woodland broadleaf enhanced	0.123	Medium	Good	1.33
Mixed Scrub	0.031	Medium	Moderate	0.25
Total (excl. trees)	0.696			2.16

3.4. In addition, the barn adjacent to the western site boundary will be demolished and this area will be incorporated into the mitigation area along the western and southern site boundaries.

3.5. This area will be planted with an additional area of 0.3Ha of good condition woodland and 0.3Ha of poor condition neutral grassland will be enhanced to good condition grassland with additional wildflower planting and a robust management regime.

3.6. In addition to this, ten oak trees will be planted, with an aim to reach a ‘good’ condition. These will be planted so that they are spread out across the area to avoid any overshading.

3.7. Post development, the biodiversity in this area will be increased to 3.02Bu as outlined in the table below.

Habitat Type	Extent (ha)	Distinctiveness	Condition Assessment	Biodiversity units
Broad leaved woodland	0.3	Medium	Good	1.0
Individual trees	0.0407	Medium	Good	0.16
Neutral grassland Other enhanced habitat.	0.3	Medium	Good	1.86
Total (excl. trees)	0.225			3.02

3.8. As a result, on site biodiversity will be reduced from 2.89Bu to 2.21Bu while the off-site mitigation will increase the biodiversity from 1.8Bu to 3.02Bu. The overall result will be to increase the biodiversity of the entire site from 4.69Bu to 5.18Bu, an increase of 16.72% as shown below, while satisfying the trading rules.

FINAL RESULTS	
Total net unit change <small>(Including all on-site & off-site habitat retention, creation & enhancement)</small>	<i>Habitat units</i> 0.48
	<i>Hedgerow units</i> 0.00
	<i>Watercourse units</i> 0.00
Total net % change <small>(Including all on-site & off-site habitat retention, creation & enhancement)</small>	<i>Habitat units</i> 16.72%
	<i>Hedgerow units</i> 0.00%
	<i>Watercourse units</i> 0.00%
Trading rules satisfied?	Yes ✓

Unit Type	Target	Baseline Units	Units Required	Unit Deficit
<i>Habitat units</i>	10.00%	2.89	3.18	0.00
<i>Hedgerow units</i>	10.00%	0.00	0.00	0.00
<i>Watercourse units</i>	10.00%	0.00	0.00	0.00

No additional area habitat units required to meet target ✓
 No additional hedgerow units required to meet target ✓
 No additional watercourse units required to meet target ✓

4. ON-SITE BIODIVERSITY AND ENHANCEMENT MANAGEMENT PLAN DETAIL.

4.1. Target Conditions.

4.1.1. Developed Land.

This habitat comprises all areas of hard landscaping and buildings on the site and will not contribute any biodiversity units to the site therefore there is no requirement for a management plan to cover this habitat.

4.1.2. Vegetated Garden.

4.1.2.1. The gardens for the new properties will either be turfed with a standard garden lawn turf or seeded with a standard lawn seed mix. No condition assessment is required for this habitat as it is fixed at 'Poor' and no management plan is required.

4.1.2.2. There will be no control over the future maintenance of the garden habitats once the properties are sold, and although there is a possibility that some homeowners may remove the soft landscaping features, there is also high probability of some homeowners planting their own shrubs and plants as well as install features to attract wildlife species such as birds and insects, which will enhance the value of the garden habitat. Overall, it is assessed that this will balance out and these garden habitats will be retained long term.

4.1.3. Other Broadleaved woodland.

4.1.3.1. A 10m wide strip of the existing broadleaved woodland alongside the River Don will be retained and enhanced to achieve a higher condition assessment. The condition assessment for this habitat currently shows it to be in a moderate condition and it is intended to increase the habitat condition to good.

4.1.3.2. This will be achieved by creating a number of small open spaces. Where there are currently dense stands of immature trees, these will be reduced and small open spaces created (+1).

4.1.3.3. All timber arising from creating these clearings and any wood that will be generated from reducing the width of the woodland strip to the retained 10m, will be used to create habitat piles (+1).

4.1.3.4. This will generate more deadwood within the woodland (+1).

4.1.3.5. Ground flora will be enhanced by the introduction of ancient woodland indicator species including primroses, bluebells, wood anemone, dogs' mercury and wild garlic (+1).

4.1.3.6. Additional holly (*Ilex aquifolium*), yew (*Taxus baccata*) and guelder rose (*Viburnum opulus*) will be planted in the enhanced woodland strip to increase the diversity of native plants present in order to increase the number of woodland species present from the current three to five (+1).

4.1.3.7. The fence line that separates the gardens from the retained woodland strip will be set back 1m from the woodland edge to allow pedestrian access into the area for maintenance purposes. This will also allow for a woodland edge of natural ground flora to further enhance the habitat on site.

4.1.4. Mixed Scrub.

The existing area of mixed scrub to the south of the site entrance will be retained in its existing condition.

4.1.5. Mixed Broadleaved Woodland.

4.1.5.1. The area to the west of the site will be planted with woodland species and ground flora to create an addition area of mixed broadleaved woodland that will supplement the existing woodland and will contribute to the overall site biodiversity.

4.1.5.2. Species to be planted will include the same species already present in the woodland adjacent to the River Don, oak (*Quercus sp(p)*) and silver birch (*Betula pendula*) with additional ash (*Fraxinus excelsior*), wild cherry (*Prunus avium*), bird cherry (*Prunus padus*), hornbeam (*Carpinus betulus*), holly (*Ilex aquifolium*), hazel (*Corylus avellana*), yew (*Taxus baccata*) and guelder rose (*Viburnum opulus*) to ensure more than five species thrive in the woodland.

4.1.5.3. Ground flora will be enhanced by the introduction of ancient woodland indicator species including primrose (*Primula vulgaris*), bluebell (*Hyacinthoides non-scripta*), wood anemone (*Anemone nemorosa*), dogs' mercury (*Mercurialis perennis*), wild garlic (*Allium ursinum*) and wood avens (*Geum urbanum*).

4.1.5.4. All plants will be locally sourced and all trees will be planted and furnished with a stake and a tree guard to protect them from rabbits. Trees will be planted randomly and not in ordered rows and spaces will be left to form glades. Any dead wood left over from the woodland clearance on site will be placed around the site to create habitat piles.

4.1.5. Other Neutral Grassland.

4.1.5.1. 0.3Ha of existing grassland immediately outside the southern site boundary will be enhanced from poor condition to good condition by additional wildflower planting and a robust management regime.

4.1.5.2. This grassland will be managed with an aim to reach a 'Good' condition within 30 years, in accordance with the Biodiversity Metric habitat condition criteria for grasslands with moderate, high or very high distinctiveness.

4.1.6. Urban Tree.

Ten individual oak trees will be planted across the grassland area and alongside the existing hard standing to the southwest of the site. These will be managed with an aim to reach a 'moderate' condition within 30 years.

4.2. Timetable for habitat implementation, management and monitoring.

4.2.1. The timetable overleaf incorporates in chronological order all habitat implementation, management and monitoring.

4.2.2. This timetable covers a 30 year period. It is subject to change as a result of any findings from the monitoring surveys.

Year	Month	Responsibility	Activity
	March/April or September	Developer	Sowing of BFS1 seed mix (or similar) in areas of other neutral grassland that are to be enhanced.
	Late June - September	Developer	Relaxed mowing of other neutral grassland, reduced to once every 4 – 8 weeks. The mowing regime will vary to create a variation in sward height across this area so that at least 20% of the area is less than 7cm at height and at least 20% is more than 7cm in height. Heavy quantities of cuttings removed from site.
	October/November	Developer	Three hundred and fifty trees to be planted in the new woodland area, planted spaced out as much as possible, each secured to a stake that does not exceed one third of height of the tree and shelter guards fitted around trees. Ground below mulched.
	October/November	Developer	Ten standard oak trees to be planted within the grassland area to the south of the site boundary. Trees to be spaced so avoid heavy shading. Each tree to be fixed to a stake using a tree tie and each tree to be fitted with an appropriate tree guard. Ground below mulched.
	October/November	Developer	Fifty trees to be planted in the new woodland area, planted spaced out as much as possible, each secured to a stake that does not exceed one third of height of the tree and shelter guards fitted around trees. Ground below mulched. Create woodland glades as necessary.
1	March/April	Developer	Plant primroses, bluebells, wood anemone, dogs' mercury and wild garlic in areas throughout the existing retained strip of woodland alongside the River Don and between the newly planted trees in the broadleaved woodland created to the west of the site.

	March/April to September/October	Developer	Relaxed mowing of other neutral grassland, once every 4 – 8 weeks to minimum of 40 – 60mm. The mowing regime will vary to create a variation in sward height across this area so that at least 20% of the area is less than 7cm at height and at least 20% is more than 7cm in height. Heavy quantities of cuttings removed from site.
	May to August	Developer	Irrigation of newly planted trees – 50 litres of water per week.
	May to August	Developer/Ecologist	Monitoring visit to monitor success of habitat creation and to undertake condition assessments of habitats. Ecologist will provide a report with findings and recommendations for any remedial works required. The BEMP will be revised where applicable. The developer to submit a copy of the monitoring report to the LPA by 1 st November.
	September/October.	Developer	Monitor and inspect all individually planted trees and all trees in the woodland areas. Replace any dead specimens, check and repair as needed all tree ties and tree guards.
2	March/April to September/October	Developer	Relaxed mowing of other neutral grassland, once every 4 – 8 weeks to minimum of 40 – 60mm. The mowing regime will vary to create a variation in sward height across this area so that at least 20% of the area is less than 7cm at height and at least 20% is more than 7cm in height. Heavy quantities of cuttings removed from site.
	May to August	Developer	Irrigation of newly planted trees – 50 litres of water per week.
	May to August	Developer/Ecologist	Monitoring visit to monitor success of habitat creation and establishment and to undertake condition assessment. Ecologist will provide a report with findings and recommendations for any remedial works required. This document will be revised where applicable. The developer to submit a copy of the monitoring report to the LPA by 1 st November.
	September/October.	Developer	Monitor and inspect all individually planted trees and all trees in the woodland areas. Replace any dead specimens, check and repair as needed all tree ties and tree guards.

3	March/April	Developer	Relaxed mowing of other neutral grassland, once every 4 – 8 weeks to minimum of 40 – 60mm. The mowing regime will vary to create a variation in sward height across this area so that at least 20% of the area is less than 7cm at height and at least 20% is more than 7cm in height. Heavy quantities of cuttings removed from site.
	May to August	Developer	Irrigation of newly planted trees – 50 litres of water per week.
4	March/April	Developer	Relaxed mowing of other neutral grassland, once every 4 – 8 weeks to minimum of 40 – 60mm. The mowing regime will vary to create a variation in sward height across this area so that at least 20% of the area is less than 7cm at height and at least 20% is more than 7cm in height. Heavy quantities of cuttings removed from site.
	May to August	Developer	Irrigation of newly planted trees – 50 litres of water per week.
5	March/April to September/October	Developer	Relaxed mowing of other neutral grassland, once every 4 – 8 weeks to minimum of 40 – 60mm. The mowing regime will vary to create a variation in sward height across this area so that at least 20% of the area is less than 7cm at height and at least 20% is more than 7cm in height. Heavy quantities of cuttings removed from site.
	May to August	Developer/Ecologist	Monitoring visit to monitor success of habitat creation and establishment and to undertake condition assessment. Ecologist will provide a report with findings and recommendations for any remedial works required. This document will be revised where applicable. The developer to submit a copy of the monitoring report to the LPA by 1 st November.
6 - 9	March/April	Developer	Relaxed mowing of other neutral grassland, once every 4 – 8 weeks to minimum of 40 – 60mm. The mowing regime will vary to create a variation in sward height across this area so that at least 20% of the area is less than 7cm at height and at least 20% is more than 7cm in height. Heavy quantities of cuttings removed from site.

10	March/April to September/October	Developer	Relaxed mowing of other neutral grassland, once every 4 – 8 weeks to minimum of 40 – 60mm. The mowing regime will vary to create a variation in sward height across this area so that at least 20% of the area is less than 7cm at height and at least 20% is more than 7cm in height. Heavy quantities of cuttings removed from site.
	May to August	Developer/Ecologist	Monitoring visit to monitor success of habitat creation and establishment and to undertake condition assessment. Ecologist will provide a report with findings and recommendations for any remedial works required. This document will be revised where applicable. The developer to submit a copy of the monitoring report to the LPA by 1 st November.
11 - 19	March/April	Developer	Relaxed mowing of other neutral grassland, once every 4 – 8 weeks to minimum of 40 – 60mm. The mowing regime will vary to create a variation in sward height across this area so that at least 20% of the area is less than 7cm at height and at least 20% is more than 7cm in height. Heavy quantities of cuttings removed from site.
20	March/April to September/October	Developer	Relaxed mowing of other neutral grassland, once every 4 – 8 weeks to minimum of 40 – 60mm. The mowing regime will vary to create a variation in sward height across this area so that at least 20% of the area is less than 7cm at height and at least 20% is more than 7cm in height. Heavy quantities of cuttings removed from site.
	May to August	Developer/Ecologist	Monitoring visit to monitor success of habitat creation and establishment and to undertake condition assessment. Ecologist will provide a report with findings and recommendations for any remedial works required. This document will be revised where applicable. The developer to submit a copy of the monitoring report to the LPA by 1 st November.

21 - 29	March/April	Developer	Relaxed mowing of other neutral grassland, once every 4 – 8 weeks to minimum of 40 – 60mm. The mowing regime will vary to create a variation in sward height across this area so that at least 20% of the area is less than 7cm at height and at least 20% is more than 7cm in height. Heavy quantities of cuttings removed from site.
30	March/April to September/October	Developer	Relaxed mowing of other neutral grassland, once every 4 – 8 weeks to minimum of 40 – 60mm. The mowing regime will vary to create a variation in sward height across this area so that at least 20% of the area is less than 7cm at height and at least 20% is more than 7cm in height. Heavy quantities of cuttings removed from site.
	May to August	Developer/Ecologist	Monitoring visit to monitor success of habitat creation and establishment and to undertake condition assessment. Ecologist will provide a report with findings and recommendations for any remedial works required. This document will be revised where applicable. The developer to submit a copy of the monitoring report to the LPA by 1 st November.

5. BAT AND BIRD BOX SCHEME.

5.1. Four integrated bat boxes will be provided in the form of the Habibat Bat Box – Custom Facing, similar to shown adjacent. Five of these will be incorporated into gable ends of the new dwellings, at least 5m above ground level where they are away from any direct artificial light interference.

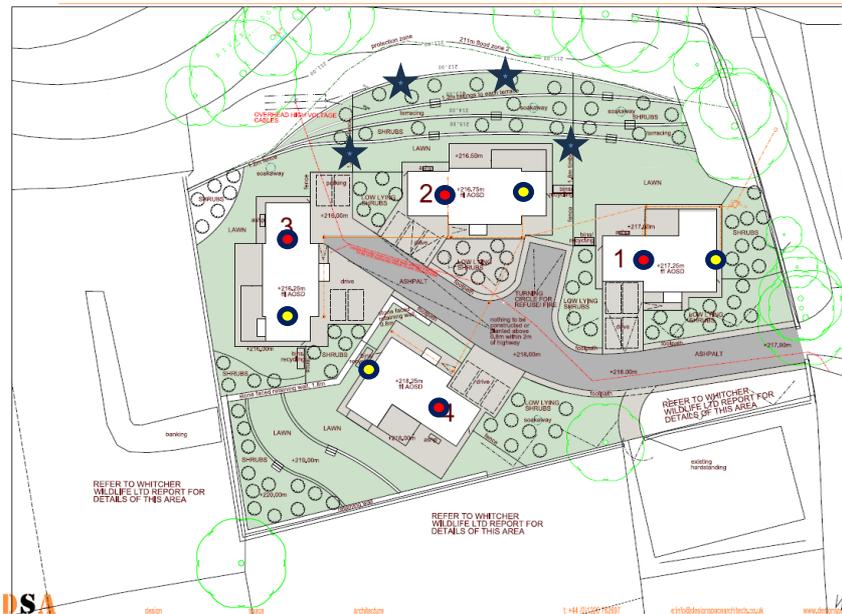


5.2. Four pairs of integrated swallow boxes will be provided across the site, similar to that shown adjacent. These will again be positioned in the gable end walls of the new bungalows. These will be positioned at least 4m above ground level as close to the eaves as possible, away from any regular disturbance and not above windows or doors to prevent a build-up of droppings on the cills.



5.3. The plan below shows the locations of each integrated bat and bird box to be provided where the red circle represents a bat brick and a yellow circle a pair of adjacent swift bricks.

5.4. The stars show the location of 130mm by 130mm hedgehog accesses in timber fences. Each access will be marked with an appropriate sign to indicate that it needs to be retained and unobstructed.



5.5. Hedgehog access signs should be as shown adjacent, or equivalent.



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