

Brooks

Ecological

An Origin Enterprises Company



Biodiversity Management Plan

Main Avenue, Kirklees

Strata Homes/Thirteen Group Ltd

ER-7172-08

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| Report Reference: | Biodiversity Management Plan Main Avenue, Kirklees |
| Report Reference: | ER-7172-08 |
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| Date: | 19/11/2025 |

Introduction

This site has been subject to baseline studies which have informed the layout, demonstrating its engagement with the 'mitigation hierarchy'. Designs have been drawn up that allow the scheme to deliver biodiversity units through habitat creation and management.

The final layout has been assessed under the Statutory Metric for Biodiversity Net Gain showing the proposed development can achieve 9.41 habitat units and 0.25 hedgerow units on site. This report is the final delivery document, and shows how retained and created habitats can attain the condition scores that were predicted in the Biodiversity Net Gain proposals.

In addition to meeting habitat condition objectives, this document presents all additional measures to enhance the value of the Site for fauna.

The Plan is produced in accordance with Chapter 11 of British Standard 42020. Reports which set out how wildlife interests will be enhanced, restored and maintained.

In producing this plan the following sources have been referred to:

- Preliminary Ecological Appraisal Report, Brooks Ecological ER-7172-01A September 2024
- Biodiversity Net Gain Calculations, Brooks Ecological BM-7172-01E October 2025
- Biodiversity Net Gain Report, Brooks Ecological ER-7172-03C October 2025
- Landscape Masterplan, 500@A1 dwg. R/2784/1M, FDA Landscape, September 2025

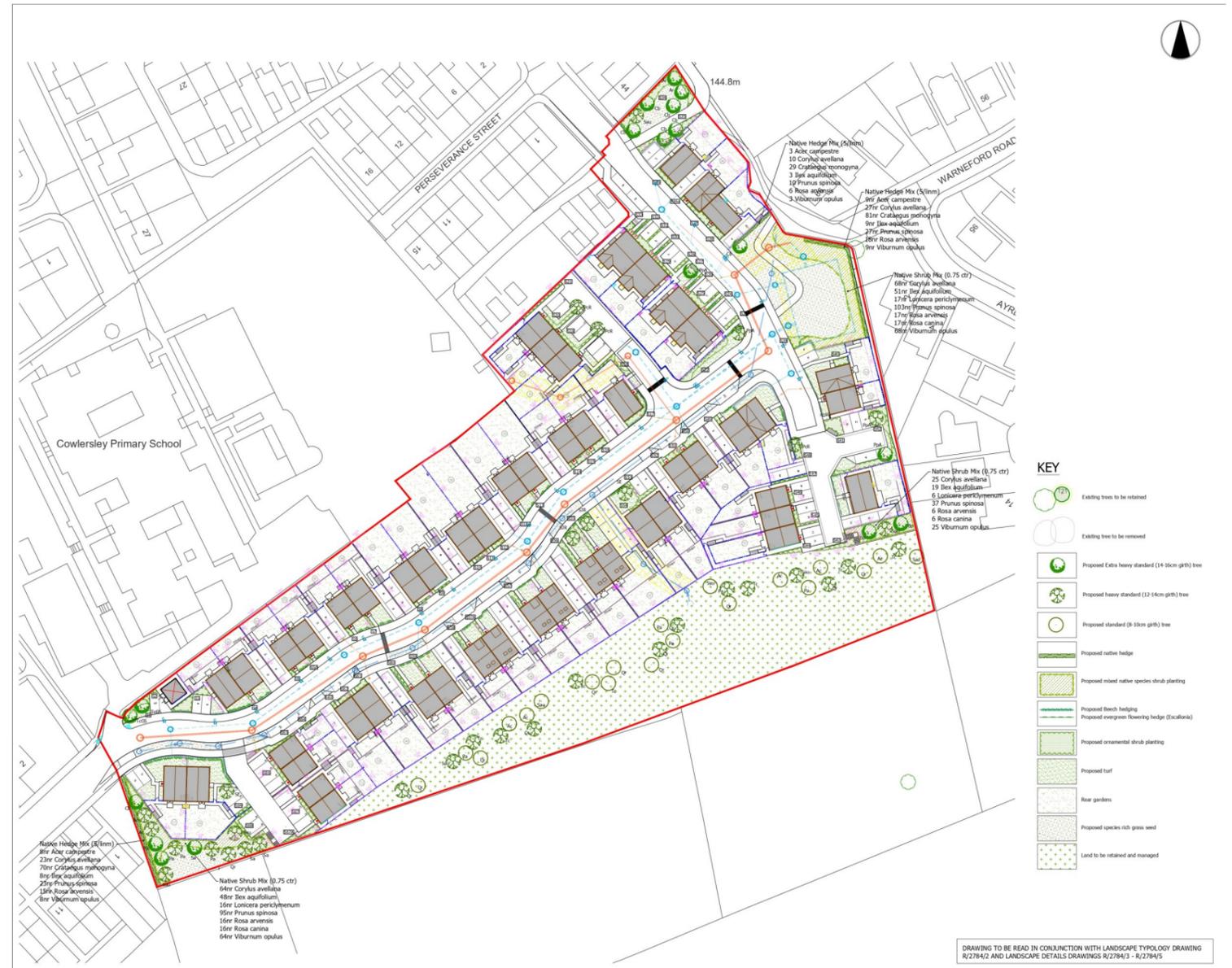


Figure 1 Landscape Masterplan – 500@A1 dwg. R/2784/1M, FDA Landscape, September 2025

Aims

The aim of this plan is to maximise delivery of the wildlife potential and condition of habitats on site, creating areas of robust semi-natural landscape that offset some pre-existing habitat lost through development and provide enhancements which benefit invertebrates, mammals, birds and reptiles.

Objectives

The following sections of the Plan detail management objectives relevant to each habitat or ecological feature as appropriate. These include management options and monitoring to ensure features achieve their target objectives and habitat conditions over the course of the management period. An overall work schedule is provided to summarise annual works.

Scope of Plan

This plan relates to the whole development as contained within the red line illustrated in Figure 2. The creation and maintenance of some features which also deliver biodiversity units are specified separately in the Landscape Masterplan as these features fall within built and amenity spaces subject to landscaping standards and estate maintenance. This includes native trees, amenity grassland and ornamental hedgerows.

Delivering the Plan

The Developer is responsible for the creation and establishment works for a five-year period.

The Developer will appoint either a Specialist Ecological Management Company (SEMC) or a company working under the direction of an Ecological Clerk of Works (ECoW) to oversee the delivery of this plan prior to any work commencing on site.

The ECoW would be a qualified Ecologist and member of the Chartered Institute of Ecology and Environmental Management, or be otherwise approved by the LPA.

After year five, this plan will be the responsibility of a Site Management Company whence it will be implemented in perpetuity.



Figure 2 Pre-development red line boundary

Native Hedgerow

Rationale

Create new linear features which can provide forage, shelter and nesting resources to birds, small mammals and invertebrates.

Objectives

Maintaining a DEFRA condition score of **Moderate** by Year 5.

Specification

Soil Protected *in situ*.

Weeds Maintain a weed free strip under establishing hedge.

Planting From Landscape Plan *Native Hedge Mix* schedule . Plant hedge as staggered double row where specified.

Management

Year 1 Keep a 1m strip centered on the hedge free of weed growth using translocated non persistent herbicide. Up to two visits in the growing season.

Year 2 No further weed treatment.

Year 3 Cut 50% of hedge in late winter. Identify any trees that can be left to grow into hedgerow standards. Mark with a flag to prevent cutting. Look to achieve a random scattering of standards averaging at 1 per 40m.

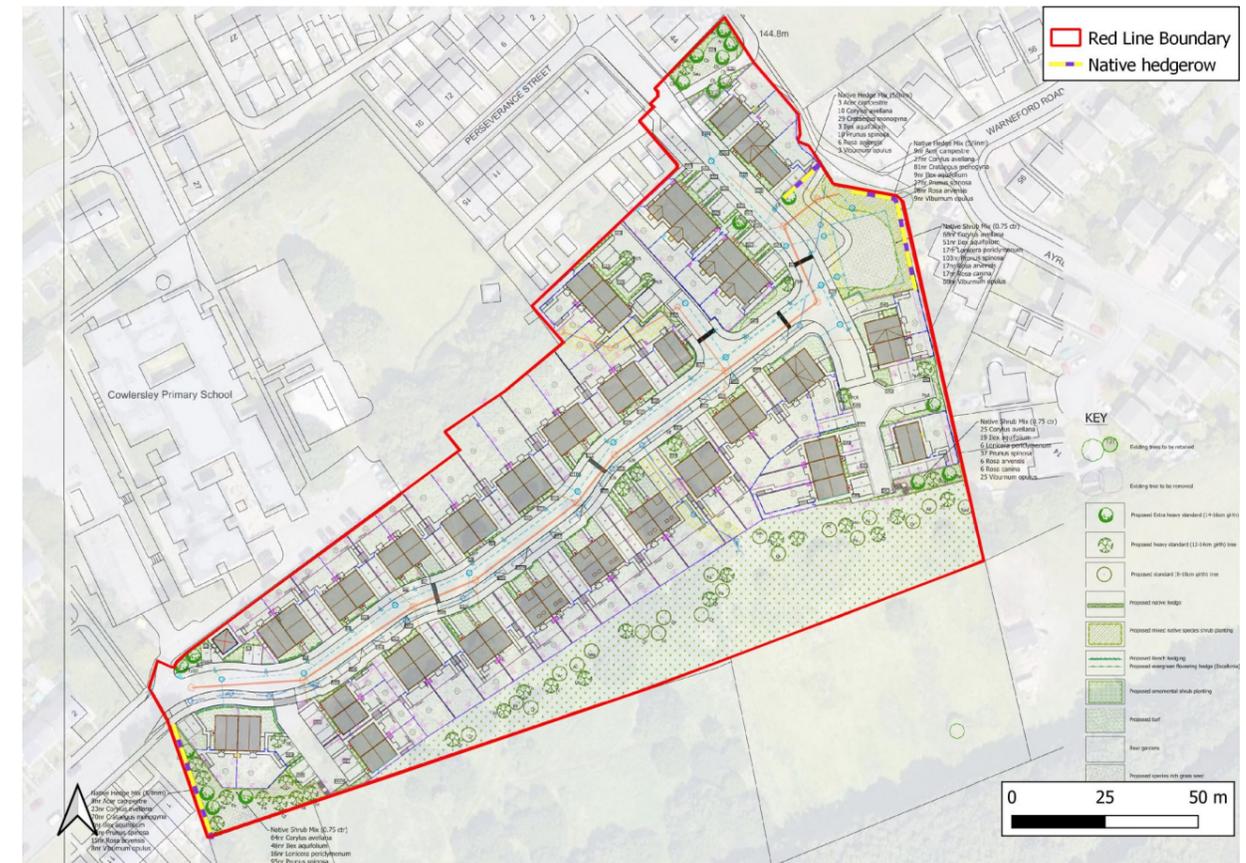
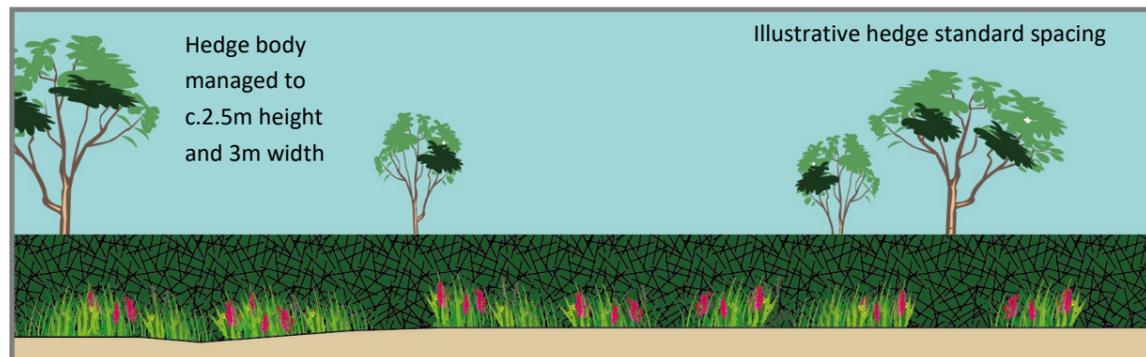
Years 4-10 Cut the remaining uncut 50% of each identifiable hedge in late winter. Keep flags to prevent cutting until a very obvious standard has developed. Repeat cutting treatment alternating areas cut between years.

Monitoring

ECoW to conduct monitoring visits in to check trajectory to Moderate condition.

Remedial action options

- Increase weed control if undesirable species establish.
- Re-seed and replant locally.
- Vary cutting profile.



| | Attribute | Criteria for favourable condition | Targeted? |
|----|---|---|-----------|
| A1 | Height | >1.5m average along length | Yes |
| A2 | Width | >1.5m average along length | No |
| B1 | Gap - hedge base | Gap between ground and base of canopy <0.5m for >90% length | Yes |
| B2 | Gap - hedge canopy continuity | Gaps make up <10% of total length and no canopy gaps >5m | Yes |
| C1 | Undisturbed ground and perennial vegetation | >1m width of undisturbed ground with perennial herbaceous vegetation for >90% of length, measured from the outer edge of the hedgerow & present on one side of hedge at least | No |
| C2 | Undesirable perennial vegetation | Plant species indicative of nutrient enrichment of soils dominate <20% cover of area of undisturbed ground | No |
| D1 | Invasive and neophyte species | >90% of hedgerow and undisturbed ground is free of invasive non-native and neophyte species | Yes |
| D2 | Current damage | >90% of hedgerow of undisturbed ground is free of damage caused by human activities | Yes |

Wildflower Lawn

Rationale

Creating functional yet flower rich amenity type grassland to attract invertebrates and pollinators. Not intended to replicate priority grassland habitat type.

Objectives

Habitat: Other Neutral Grassland. Reaching a DEFRA condition score of **Moderate** by year 10.

Specification

Preparation No more than 5cm of topsoil will be spread over the subsoil profile. This will be loose tipped and spread with back actor to avoid compaction, and harrowed to a fine tilth ready for seeding.

Seeding Seed with Emorsgate EL1 according to supplier's instructions. If soils have been spread before September, any weed growth that has established in the meantime will be sprayed off with glyphosate and a seedbed be re-prepared. Seed will either be broadcast by hand or by approved lightweight machinery at ca. 40kg/Ha. Following seeding the area will be lightly rolled to incorporate the seed with the growing substrate.

Management

Year 1 Five cuts, collect arisings and remove from Site. Use a weed wipe three times in year 1 to kill off weeds—spear thistle, creeping thistle, broad-leaved dock, clustered dock, wood dock, curled dock, nettle, ragwort, and others according to ECoW recommendations. Operatives must be proven competent in identifying.

Years 2 onwards Cut once per month during the growing season, leave for 5 weeks in June. Arisings may be left to rot *in situ* unless condition is deteriorating.

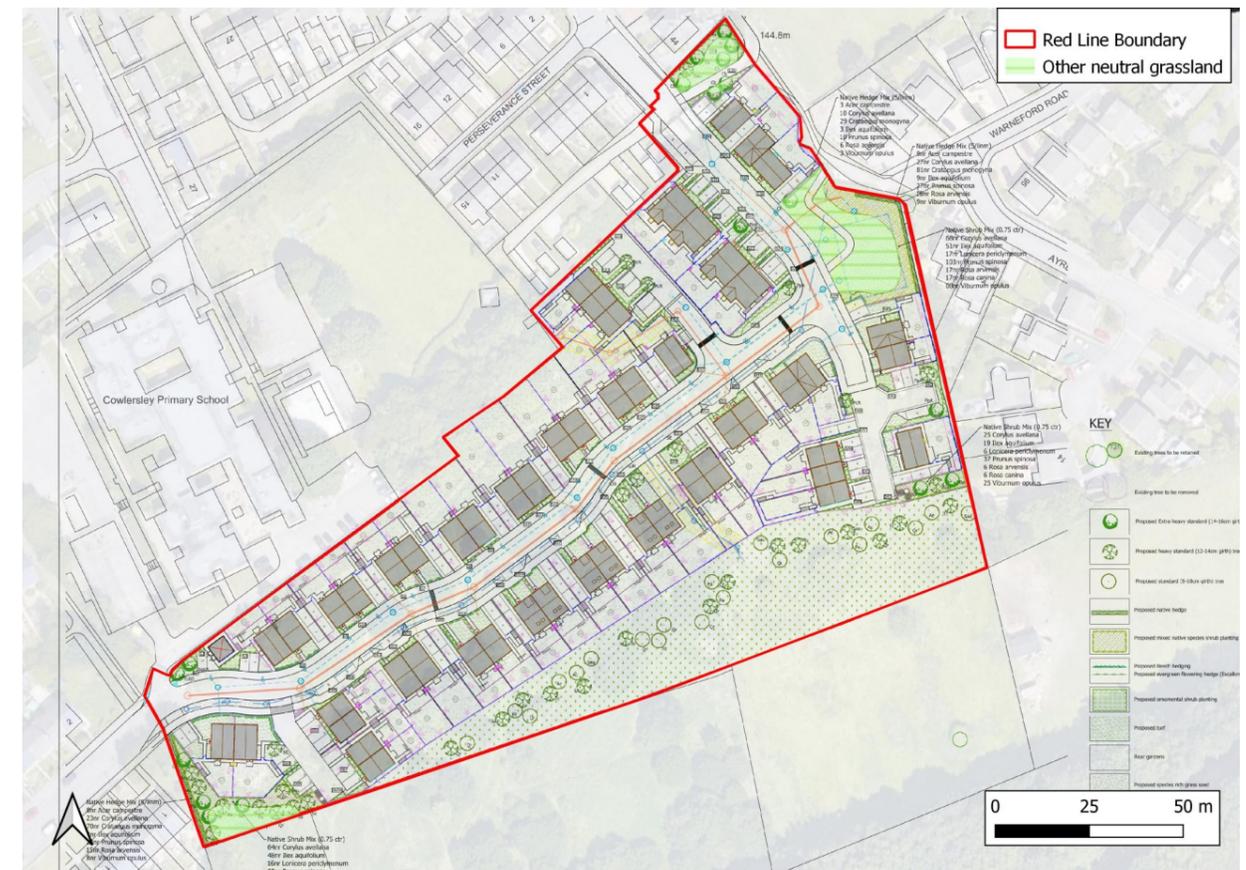
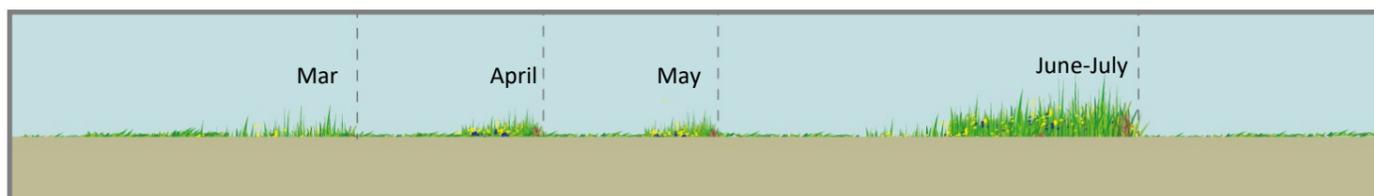
Monitoring

ECoW to conduct monitoring visit in year 2 to record relative cover values according to objective 1-4.

Output ECoW report.

Remedial action options

- Localised weed control or over sowing with wildflower seed.
- Periodic collection of arisings under the instructions of the ECoW.



| | Condition Assessment Criteria Grassland habitat type | Targeted? |
|---|--|-----------|
| A | Represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type. | No |
| B | Sward height is varied (at least 20% of the sward is less than 7cm and at least 20% is more than 7cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed. | Yes |
| C | Cover of bare ground is between 1% and 5%, including localized areas, for example, rabbit warrens. | Yes |
| D | Cover of bracken is less than 20% and cover of scrub is less than 5% | Yes |
| E | Combined cover of species indicative of suboptimal condition and physical damage accounts for less than 5% of total area. | Yes |
| 6 | There are 10 or more vascular plants species per m ² present, including forbs that are characteristic of the habitat type. | No |

Wildflower Meadow (Management)

Rationale

Maintain diverse grassland, attracting invertebrates, pollinators, mammals and birds.

Objectives

Habitat: Other Neutral Grassland. Maintaining a DEFRA condition score of **Good** by year 10.

Habitat: Other Lowland Acid Grassland. Reaching a DEFRA condition score of **Good** by year 10.

Management

Year 1 onwards

Two cuts, once in August and again in October. Collect and remove arisings. Continue to spot-treat competitive weed species each year until under control according to ECoW.

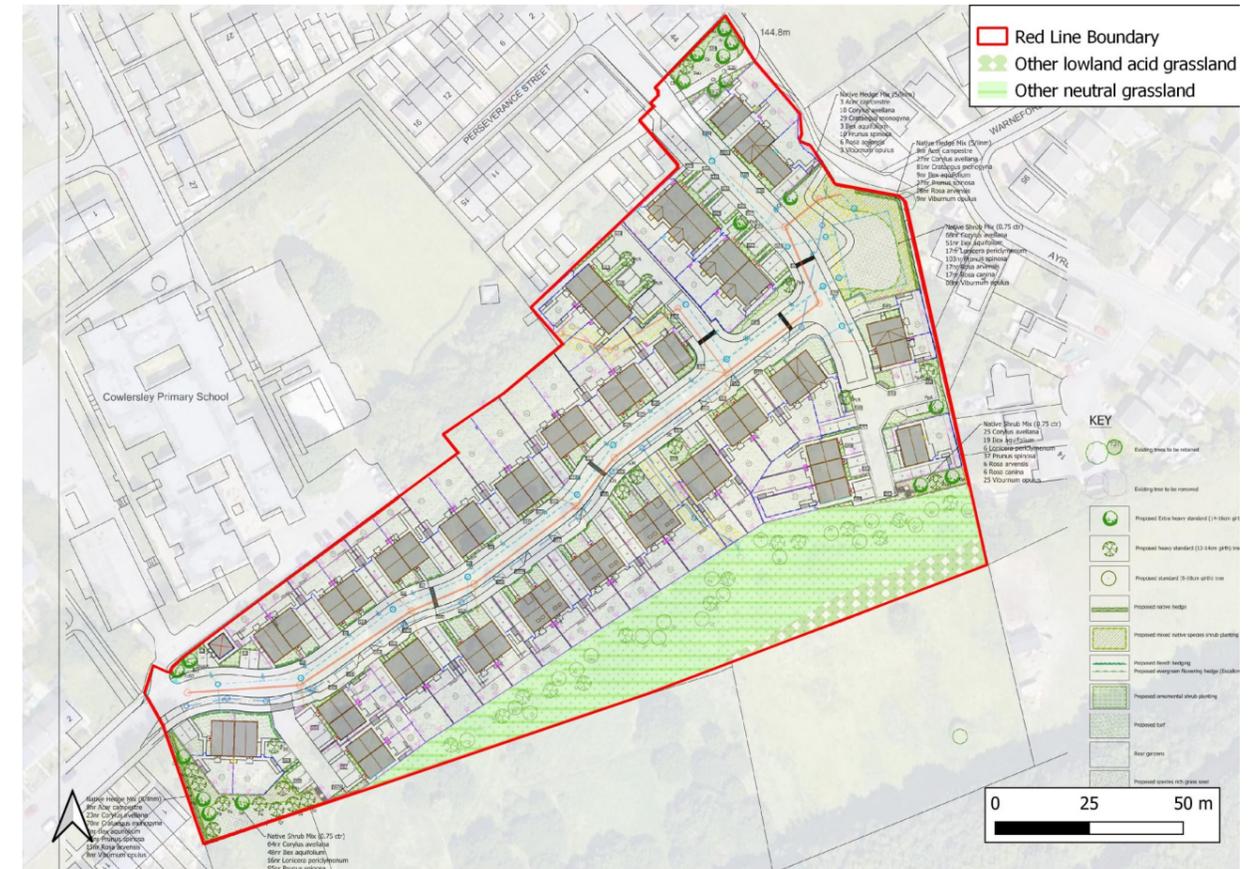
Monitoring

ECoW to conduct monitoring visits in years 1, 3 and 5.

Output ECoW report, years 1, 3 and 5.

Remedial action options

- Increase weed control if undesirable species establish.
- Soil scrape to reduce nutrients.
- Re-seed and replant locally.
- Monitor for INNS
- Alter mowing regime to create greater sward height complexity.



Grassland growth and mowing regime—Year 2 onwards.



Mixed Scrub

Rationale

Creating functional yet species-rich scrub areas to attract insects, birds and mammals, as well as create grading of semi-natural habitats.

Objectives

Habitat: Mixed scrub. Reaching a DEFRA condition score of **Moderate** by year 10.

Specification

Soil Protected *in situ*.

Weeds Treat weeds in new tree and shrub planting stations.

Planting From Landscape Plan *Shrub* schedule .

Management

Years 1-2

Keep a 0.5m diameter area weed-free with herbicide. Check shelters are fitted properly, stakes are firm and ties in place. Hand weed grasses and weeds in tree shelters if present. Replace failures next growing season. Monitor for competitive weed growth away from planting stations. Spray or weed wipe as required to keep cover to less than 10%.

Years 3-5

Monitor for competitive weed growth away from planting stations. Spray or weed wipe as required to keep cover to less than 10%. Remove tree guards before year 5.

Year 6 +

Thin by 20% to remove canopy trees if these are outcompeting scrub. Must be ECoW directed. Leave all felled timber *in situ* to rot down. Selectively seed with 1kg of native woodland seeds at ECoW discretion in locations with suitable soil and light conditions (10-40% ambient daylight in summer).

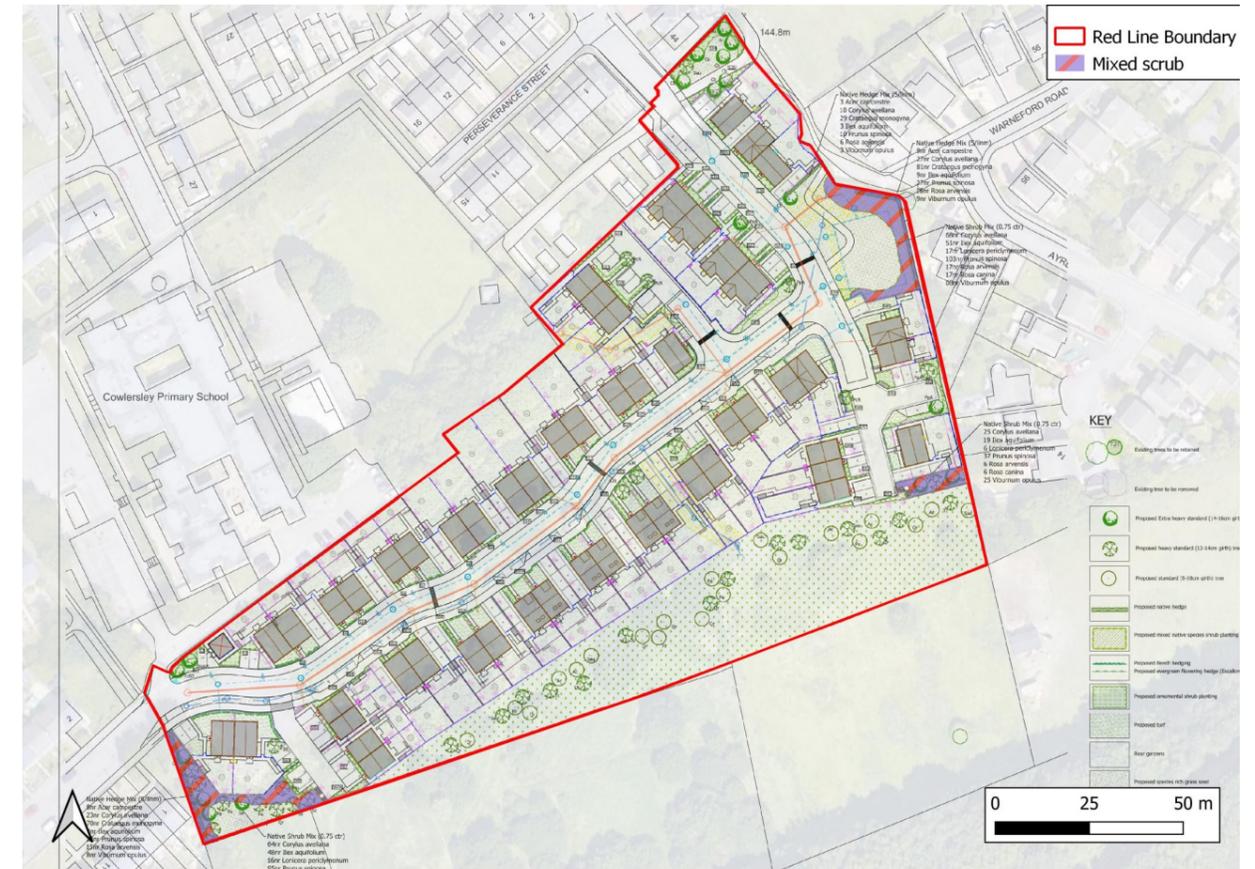
Monitoring

ECoW to conduct monitoring visits in years 1, 3 and 5.

Output ECoW report, years 1, 3 and 5.

Remedial action options

- Increase weed control if undesirable species establish.
- Re-seed and replant locally.
- Increased thinning of canopy species.



| | Condition Assessment Criteria Grassland habitat type | Targeted? |
|---|---|-----------|
| A | Represents a good example of its habitat type—the appearance and composition of the vegetation closely matches its UKHab description. | No |
| B | Seedlings, saplings, young shrubs and mature (or ancient or veteran) shrubs are all present. | Yes |
| C | There is an absence of invasive non-native plant species and species indicative of suboptimal condition make up less than 5% of ground cover. | Yes |
| D | The scrub has a well developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat. | Yes |
| E | There are clearings, glades or rides present within the scrub, providing sheltered edges. | No |

Nesting Boxes for Birds

Rationale

Ready made nesting boxes will be incorporated into building walls to provide shelter and breeding sites of declining birds such as swifts. Boxes are provided on a ratio of one per property in accordance the new British Standard but since swifts are colony species they are best installed in groups of four within end gables in the suggested locations shown right.

Swift bricks



Specification

<https://www.nhbs.com/vivara-pro-cambridge-swift-nest-box>

Or equivalent approved by the Ecological Clerk of Works

Location Notes

Swift bricks will be positioned as high up on buildings as possible, ideally below the verges of gables. Boxes will not be positioned above windows, to prevent potential conflict with new homeowners.

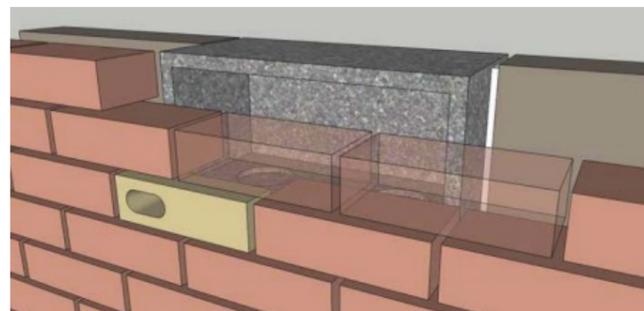
Number: 68 (4 per indicated property)

When erected? During construction

Note all locations and specifications may be varied under agreement with ECoW



Photo credits: Dick Newall; Action for Swifts



Roosting Boxes for Bats

Rationale

Ready made roosting boxes will be incorporated into building walls to provide shelter and breeding sites of declining fauna.

Integrated Bat boxes



Specification

<https://www.nhbs.com/ibstock-enclosed-bat-box-c>

Or equivalent approved by an Ecologist

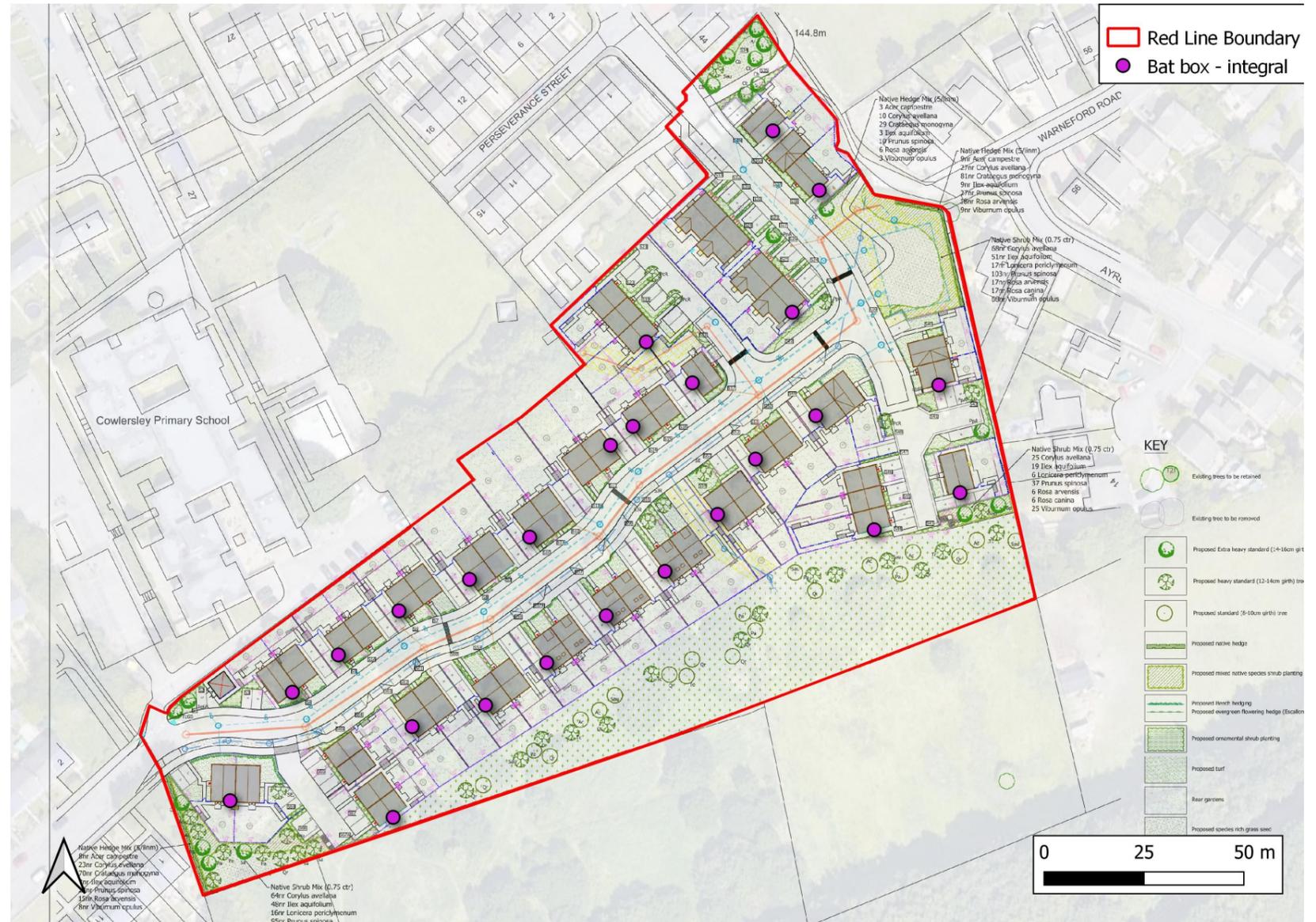
Location Notes

Locations on properties as illustrated by pink dots in plan.

Sited as high as possible under the eaves with good access to unlit vegetated corridors.

Number: 25

When erected? During construction.



Note all locations and specifications may be varied under agreement with ECoW

Rationale

Hedgehogs have seen significant declines over the last few decades, with one of the major factors being loss of habitat. This species is listed under Section 41 of the NERC Act (2006) as a 'Species of Principle Importance'.

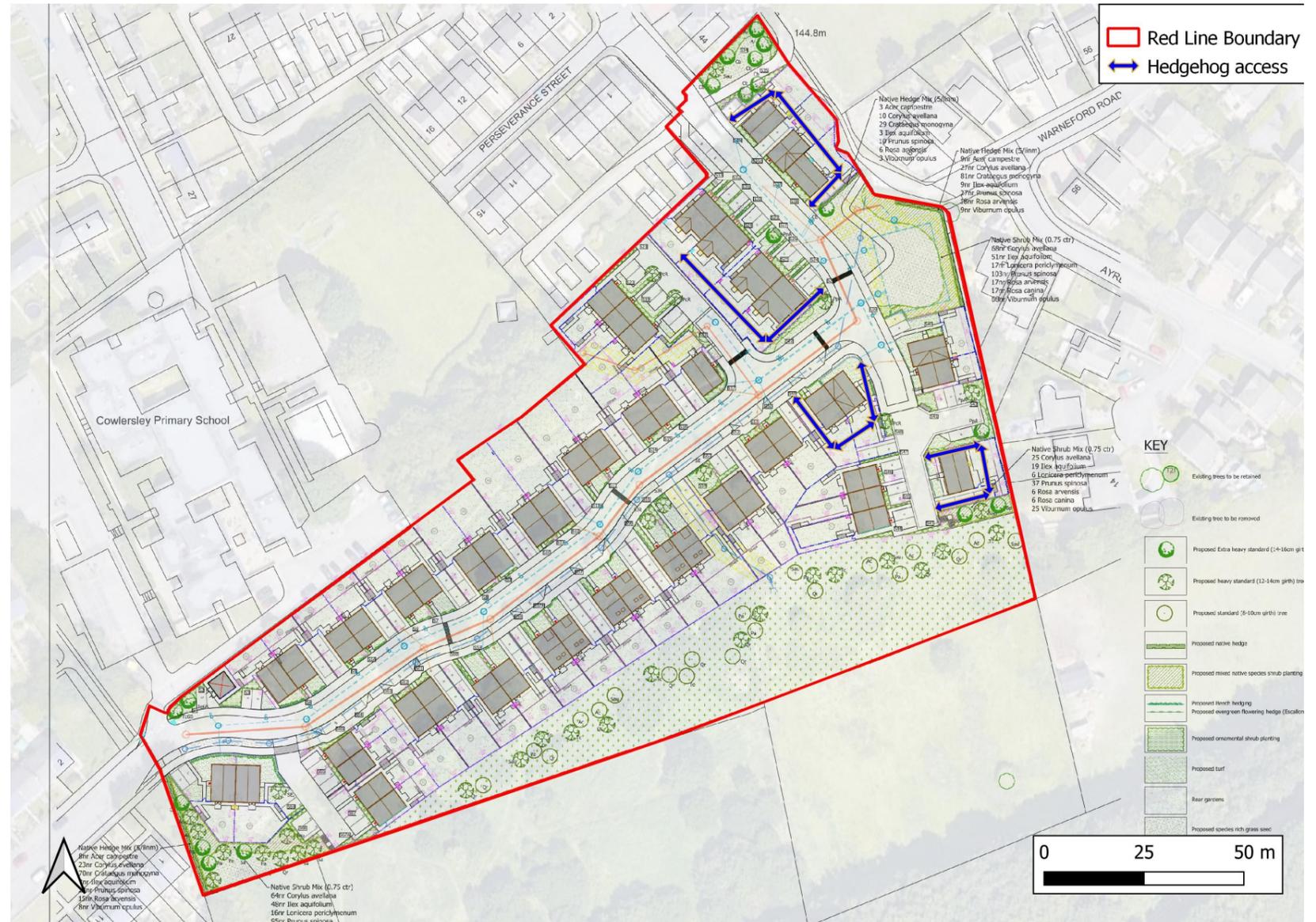
New gardens can provide excellent hedgehog habitat and whereas previously, these gardens were accessible to this species by virtue of hedgerow planting, a shift in industry practice to hard borders (fences and walls) has inadvertently excluded hedgehog from this extensive foraging resource. Simply providing a means of access into and between these new gardens can very easily and cheaply increase the amount of habitat available to hedgehog.

Hedgehog access holes

Hedgehog access is limited at this Site by the requirement for retaining walls. Suitable access hole locations have been identified and are shown opposite. At least one hedgehog access hole (measuring at least 13cm x 13cm) will be installed in these gardens and boundary fence lines, allowing rear gardens and POS (marked green opposite) to remain connected. This will allow hedgehogs to move through the Site.

This will be done by contractors during the fence's installation. These will be either purpose made panels such as those supplied by Jackson Fencing or be cut into standard fences, by contractors, during installation. Where concrete gravel boards are used, either purpose built ramps to access holes in the fence panels or underpasses beneath the boards will be made.

All holes will be simply labelled 'Hedgehog Highway' (see photos below) so home owners know why there are there. This will reduce the risk of holes being sealed.



Timeline

* Time needed will depend upon factors beyond the ECoW's control and may vary significantly from this estimate.

| Task | ECoW to direct | ECoW to carry out | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | 6+ |
|--|-------------------|-------------------|---------------------------|---------------------------|------------------|------------------|------------------|------------------|
| Soiling of new grassland habitats – POS | Yes | | To construction programme | To construction programme | | | | |
| Seeding and planting of new grassland habitats | Yes | | September–November | September–November | | | | |
| Planting of new scrub habitats | Yes | | November–February | November–February | | | | |
| Hedgerow planting | Yes | | November–February | November–February | | | | |
| Manage wildflower grassland | Yes (in year 1-2) | | | April-Sept | April-Sept | April-Sept | April-Sept | April-Sept |
| Manage native hedgerows | Yes (in year 1-2) | | | October-February | October-February | October-February | October-February | October-February |
| Erect faunal boxes and hedgehog access | | | As built | As built | | | | |
| ECoW verification faunal boxes | | | As built | As built | | | | |
| ECoW Monitoring | | Yes | Yes | | Yes | | Yes | |