



**FUTURES**ECOLOG

Redrow Homes (Yorkshire) Ltd, R. Kershaw and S. Gill

**Bradley Villa Farm, Kirklees**

**BIODIVERSITY ENHANCEMENT & MANAGEMENT PLAN (BEMP)**

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## **1.0 INTRODUCTION**

- 1.1 The following Biodiversity Enhancement & Management Plan (BEMP) has been prepared by Futures Ecology Ltd. on behalf of Redrow Homes (Yorkshire) Ltd, R. Kershaw and S. Gill to discharge Condition 39 attached to planning permission 2021/62/92086/W, for land at Bradley Villa Farm, Bradley Road, Bradley, Huddersfield, HD2 2JX (central grid reference: SE 152 205) (Kirklees Council).

### **SITE LOCATION AND CONTEXT**

- 1.2 The site is approximately 14.5ha in extent and comprises grazed, improved grassland fields associated with Villa Farm. Hedgerows and post and wire fences form the boundaries of the site. The Villa Farm agricultural buildings and a number of residential properties border site to the south. The M62 is located to the north of Site, the residential area of Fixby is situated to the west, with Bradley Park Golf Course to the east.

### **PLANNING PERMISSION**

- 1.3 The site has planning permission for the erection of 277 residential dwellings and associated infrastructure and access (Planning Reference: 2021/62/92086/W). Condition 39 attached to the planning permission relates to ecology and states;

*39. Prior to the commencement of superstructure works, a Biodiversity Enhancement and Management Plan (BEMP) shall be submitted to and approved in writing by the Local Planning Authority. The BEMP shall be in accordance with the submitted Biodiversity Impact Assessment (Futures Ecology, April 2022, ref: FE30/BIA01), shall provide a minimum of 15.5 habitat units and 4.52 hedgerow units post-development and shall include the following:*

- *Description and evaluation of features to be managed;*
- *Details of the extent and location/area of proposed enhancement works on appropriately-scaled maps and plans;*
- *Details corresponding with landscaping details to be submitted pursuant to condition 38;*
- *Details of ecological trends and constraints on site that might influence management;*
- *Aims and Objectives of management;*
- *Appropriate management actions for achieving Aims and Objectives;*
- *An annual work programme (to cover an initial five-year period capable of being rolled forward over a period of 30 years);*
- *Details of the management body or organisation responsible for implementation of the BEMP;*
- *Details of an ongoing monitoring programme and remedial measures; and*
- *Arrangements for the review and update of the BEMP every five years and its implementation for a minimum of 30 years.*

*The BEMP shall include details of the legal and funding mechanisms by which the long-term implementation of the BEMP will be secured by the developer through the management body responsible for its delivery. The BEMP shall also set out (where the results from the monitoring show that the Aims and Objectives of the BEMP are not being met) how contingencies and/or remedial action will be identified, agreed and implemented so that the development still delivers conservation Aims and Objectives for the site. The development shall be implemented in accordance with the approved BEMP and all measures and features shall be retained in that manner thereafter.*

*Reason: To secure mitigation and compensation for the ecological effects resulting from loss of habitat and to secure a net biodiversity gain in line with policy LP30 of the Kirklees Local Plan and chapter 15 of the National Planning Policy Framework.*

*This pre-commencement condition is necessary to ensure that measures to ensure adequate enhancement and a biodiversity net gain are agreed at an appropriate stage of the development process.*

- 1.4 Since the initial Biodiversity Impact Assessment (Futures Ecology, April 2022, ref: FE30/BIA01) was submitted, there have been some changes to the landscaping. The main change is that the drainage basin and surrounding grassland can now be managed and enhanced for wildlife. Other changes have also been made to the areas of Public Open Space (POS).
- 1.5 The habitat creation and management will now be based on the Detailed Landscaping Proposals (Golby + Luck, GL2067 01C – 06C).
- 1.6 An updated metric 3.0 calculation has been run, and the scheme now achieves **19.98 Habitat Units** and **4.55 Hedgerow Units**.

## **2.0 DESCRIPTION AND EVALUATION OF FEATURES TO BE MANAGED**

- 2.1 Features to be retained and managed include onsite retained native hedgerows H2, H4, H6 and H7 and boundary broadleaved trees (see Figure 1).
- 2.2 Newly created habitats include native trees, wildflower / species rich grassland (other neutral grassland), wetland meadow (other neutral grassland), native mixed scrub and hedgerow planting, as well as amenity grassland (modified grassland), vegetated gardens and introduced shrub.

**Table 1: Retained / Enhanced and Created Habitats Target Condition Summary**

<b>Habitat</b>	<b>Target Condition in accordance with the Natural England Biodiversity Metric 3.0</b>
<b>Retained / Enhanced</b>	
Native Species Rich Hedgerow with trees H4 & H6	Moderate
Native Species Rich Hedgerow H7	Moderate
<b>Created</b>	
Grassland – Modified Grassland	Poor
Urban – Introduced shrub	Poor
Vegetated garden	Poor

Habitat	Target Condition in accordance with the Natural England Biodiversity Metric 3.0
Grassland – Other neutral grassland	Moderate
Heathland & Shrub – Mixed scrub	Moderate
Urban – Urban tree	Poor
Native Species Rich Hedgerow with trees (NH1, NH3)	Moderate
Native Species Rich Hedgerow (NH2)	Moderate

### **3.0 DETAILS OF THE EXTENT AND LOCATION/AREA OF PROPOSED ENHANCEMENT WORKS ON APPROPRIATELY SCALED MAPS AND PLANS**

3.1 See Figure 1.

### **4.0 DETAILS CORRESPONDING WITH LANDSCAPING DETAILS TO BE SUBMITTED PURSUANT TO CONDITION 38**

4.1 This report should be read in conjunction with the Landscaping Details.

### **5.0 DETAILS OF ECOLOGICAL TRENDS AND CONSTRAINTS ON SITE THAT MIGHT INFLUENCE MANAGEMENT**

5.1 Clearance of any significant vegetation will take place outside of the bird breeding season (March to the end of August). If this is not possible then a check for active nests should be carried out immediately before any works to the affected areas begin.

5.3 The site contains trees with Moderate bat roosting potential (T1, T3, T4 and T5). The landscaping (where applicable) around these trees will enhance connections for commuting bats and provide a foraging resource for the local bat population.

### **6.0 AIMS AND OBJECTIVES OF MANAGEMENT**

6.1 The aims and objectives of the habitat management is to:

- Manage and create new habitats with ecological value as outlined in the Biodiversity Impact Assessment (Futures Ecology, FE30/BIA02, January 2024). This includes trees, wildflower, native scrub and hedgerow planting to improve native diversity compared with existing habitats.

- Monitoring of the habitats to ensure they reach their target conditions (as outlined within the Natural England 3.0 Biodiversity Metric) and apply appropriate remediation, if required.
- Introduce new habitat features to improve the opportunities for foraging bats and birds and to provide shelter for these animals within the site. This relates to the provision of artificial boxes and integral features within new buildings.

6.2 Overall, the above will contribute to the aims of net biodiversity gain within the local area.

## **7.0 APPROPRIATE MANAGEMENT ACTIONS FOR ACHIEVING AIMS AND OBJECTIVES**

7.1 Within the Biodiversity Impact Assessment (Futures Ecology, FE30/BIA02, January 2024) the Natural England Biodiversity Metric 3.0 shows that 19.98 Habitat Units and 4.55 Hedgerow Units can be delivered on site post development.

7.2 Areas of native scrub planting, wildflower turf and native hedgerows will be created and managed for a minimum of 30-years. Monitoring and implementation of remedial measures will ensure that the habitat target conditions are achieved.

7.3 Details of planting, including a species list, has been included in a separate Detailed Landscaping Proposals (Golby + Luck, GL2067 01C – 06C).

7.4 The locations of the habitats can be found in Figure 1: Habitat Management & Enhancement Plan.

### **MODIFIED GRASSLAND (AMENITY)**

7.5 Amenity grassland will be created through the development. Due to the frequent cutting of these areas to maintain a short sward, the amenity grassland will be assumed to maintain a poor condition.

### **INTRODUCED SHRUB**

7.6 New planting around new residential dwellings will be predominantly ornamental shrub planting, including species which produce fruit and nectar supplying a food resource for insects, birds and small mammals. Due to the non-native nature of this habitat type, it will be assumed to maintain a poor condition.

### **VEGETATED GARDENS**

7.7 The residential gardens are outside the remit of this report as they will be privately owned. The habitat condition score for this habitat type has therefore been assumed to be poor.

### **OTHER NEUTRAL GRASSLAND (WILDFLOWERS)**

7.8 Areas of wildflower seeding will be incorporated within scheme and managed to reach at least moderate condition. Species mixes will vary depending on the ground conditions,

for example the attenuation basin will be seeded with a wetland meadow mixture, however the ongoing management, once established, will be the same.

### **Establishment**

- 7.9 The majority of wildflower areas will be seeded with seed mix such as Emorsgate Standard General-Purpose Meadow Mixture EM2. The species composition for EM2 is listed below, but would be subject to change depending on stock availability:

#### **15% Wild flowers**

1.0%	Betony	<i>Betonica officinalis</i>
3.5%	Common Knapweed	<i>Centurea nigra</i>
0.1%	Wild Carrot	<i>Daucus carota</i>
1.0%	Meadowsweet	<i>Filipenula ulmaria</i>
0.3%	Lady's Bedstraw	<i>Galium verum</i>
0.5%	Oxeye Daisy	<i>Leucanthemum vulgare</i>
0.9%	Bird's-foot Trefoil	<i>Lotus corniculatus</i>
1.0%	Musk Mallow	<i>Malva moschata</i>
2.0%	Ribwort Plantain	<i>Plantago lanceolata</i>
0.1%	Cowslip	<i>Primula veris</i>
0.1%	Selfheal	<i>Prunella vulgaris</i>
1.0%	Meadow Buttercup	<i>Ranunculus acris</i>
3.5%	Tufted Vetch	<i>Vicia cracca</i>

#### **85% Grasses**

8.5%	Common Bent	<i>Agriostis capillaris</i>
34.0%	Crested Dog's tail	<i>Cynosurus cristatus</i>
25.5%	Red Fescue	<i>Festuca Rubra</i>
17.0%	Smooth-stalked Meadow-grass	<i>Poa pratensis</i>

- 7.10 The attenuation basin in the north of site will be seeded with a wetland meadow mixture to take advantage of the damp ground conditions. This area will be seeded with seed mix such as Emorsgate Meadow Mixture for Wetlands EM8. The species composition for EM8 is listed below, but would be subject to change depending on stock availability:

#### **15% Wild flowers**

2.0%	Yarrow	<i>Achillea millefolium</i>
0.6%	Agrimony	<i>Agrimonia eupatoria</i>

3.6%	Common Knapweed	<i>Centurea nigra</i>
1.0%	Meadowsweet	<i>Filipenula ulmaria</i>
2.0%	Lady's Bedstraw	<i>Galium verum</i>
0.2%	Water Avens	<i>Geum rivale</i>
0.5%	Meadow Vetchling	<i>Lathyrus pratensis</i>
0.1%	Rough Hawkbit	<i>Leontodon hispidus</i>
1.2%	Oxeye Daisy	<i>Leucanthemum vulgare</i>
0.1%	Bird's-foot Trefoil	<i>Lotus corniculatus</i>
0.4%	Greater Birdsfoot Trefoil	<i>Lotus pedunculatus</i>
3.2%	Ribwort Plantain	<i>Plantago lanceolata</i>
0.2%	Cowslip	<i>Primula veris</i>
0.1%	Selfheal	<i>Prunella vulgaris</i>
0.4%	Meadow Buttercup	<i>Ranunculus acris</i>
1.4%	Yellow Rattle	<i>Rhinanthus minor</i>
1.2%	Common Sorrel	<i>Rumex acetosa</i>
1.0%	Great Burnet	<i>Sanguisorba officinalis</i>
0.3%	Ragged Robin	<i>Silene flos-cuculi</i>
0.1%	Devil's-bit Scabious	<i>Succisa pratensis</i>
0.4%	Tufted Vetch	<i>Vicia cracca</i>

**85% Grasses**

4.0%	Common Bent	<i>Agriostis capillaris</i>
4.0%	Sweet Vernal-grass	<i>Anthoxanthum odoratum</i>
1.6%	Grey Sedge	<i>Carex divulsa subsp. divulsa</i>
34.4%	Crested Dog's tail	<i>Cynosurus cristatus</i>
1.6%	Tufted Hair-grass	<i>Deschampsia cespitosa</i>
20.0%	Red Fescue	<i>Festuca Rubra</i>
4.0%	Meadow Barley	<i>Hordeum secalinum</i>
8.0%	Rough-stalked Meadow-grass	<i>Poa trivialis</i>
2.4%	Tall Fescue	<i>Schedonorus arundinaceus</i>

- 7.11 Ground preparation will be required before the seed is sown. This includes aiming to select ground that is not highly fertile and does not have a problem with perennial weeds. To prepare a seed bed first remove weeds using repeated cultivation. Then plough or dig

to bury the surface vegetation, harrow or rake to produce a medium tilth, and roll, or tread, to produce a firm surface.

- 7.12 Seed should be sown in the autumn or spring but can be at other times of the year if there is sufficient warmth and moisture in the soil.

### **Management**

- 7.13 Once established this should be managed as a meadow and cut late in summer season (July/ August), and arisings removed, like a hay crop, by leaving on site for around a week to let seed shed. This can be complemented with a cut in spring.
- 7.14 For this habitat to achieve a minimum of moderate condition this will require management to ensure that it meets a minimum of three of the assessment criteria listed below.
1. The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges and indicator species for the specific grassland habitat type are very clearly and easily visible throughout the sward.
  2. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 & is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.
  3. Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.
  4. Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%.
  5. There is an absence of invasive non-native species (as listed on Schedule 9 of Wildlife and Countryside Act, 1981). Combined cover of undesirable species<sup>1</sup> and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area.
- 7.15 From the above list the management should target 2, 4 and 5.

### **MIXED NATIVE SCRUB**

- 7.16 An area of mixed native scrub will be planted along the eastern boundary of site with at least three woody species and no one species comprising more than 75% of the planting.
- 7.17 Scrub should be planted between October and March with biodegradable rabbit protection / tree ties as required. These should be bare root species c.40-60cm, planted c.2 to 3m apart though the distances should differ to try to create variation within the habitat.
- 7.18 This habitat will be managed to reach moderate condition. This will require management to ensure that it meets three of the condition criteria below.

<sup>1</sup> Undesirable species are: creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, common nettle *Urtica dioica*, creeping buttercup *Ranunculus repens*, greater plantain *Plantago major*, white clover *Trifolium repens*, cow parsley *Anthriscus sylvestris*.

1. Habitat is representative of UKHab description (where in its natural range). There are at least three woody species, with no one species comprising more than 75% of the cover (except common juniper, sea buckthorn or box, which can be up to 100% cover).
2. There is a good age range – all of the following are present: seedlings, young shrubs and mature shrubs.
3. There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species<sup>1</sup> make up less than 5% of ground cover.
4. The scrub has a well-developed edge with scattered scrub and tall grassland and/or herbs present between the scrub and adjacent habitat(s).
5. There are clearings, glades or rides present within the scrub, providing sheltered edges.

7.19 From the above list the management should target 1, 2 and 3.

### **URBAN TREE**

- 7.20 Tree planting will be undertaken throughout the scheme. Due to their setting within maintained amenity grassland, and the abundance of non-native specimens, the condition will be assumed to be maintained at poor.
- 7.21 Trees should be planted between October and March with biodegradable rabbit protection / tree ties as required.

### **HEDGEROWS**

- 7.22 Retained hedgerows will be enhanced by gapping them up with additional native planting to include at least five native species per 30m section, this will aim to enhance H4, H6 and H7 to Native Species Rich Hedgerows with trees in moderate condition. H2 will be incorporated into a private garden and therefore management cannot be secured.
- 7.23 New native species rich hedgerow planting with trees will be undertaken at the site entrance off the A641 Bradford Road to the west of Site (NH1) and along the eastern boundary (NH3). Further native species rich hedgerows will be planted along the eastern boundary (NH2). The newly created hedgerows will be planted with at least five native species per 30m section.
- 7.24 Once planted the hedgerows will be allowed to establish and develop in height (>1.5m ) and depth (>1.5m ) within the first few years. After 3 years, the hedgerows will be cut back once per annum between January and February, to avoid the nesting bird season and to provide an overwintering food source (berries / fruit).
- 7.25 As and when required the hedgerow will be laid or coppiced to maintain dense cover at the base providing habitat and shelter for nesting birds and cover for foraging small mammals.
- 7.26 The native species rich hedgerows will be managed to reach moderate condition. This will require management to ensure that there are no more than 4 failures in total from the table below and that it does not fail both attributes in more than one functional group.

Table 2: Hedgerow Condition Assessment<sup>2</sup>

Attribute	Criteria	Description
A1. Height	>1.5m average along length	<p>The average height of woody growth estimated from base of stem to the top of shoots, excluding any bank beneath the hedgerow, any gaps or isolated trees.</p> <p>Newly laid or coppiced hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice).</p> <p>A newly planted hedgerow does not pass this criterion (unless it is &gt; 1.5 m height).</p>
A2. Width	>1.5m average along length	<p>The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees.</p> <p>Outgrowths (e.g., blackthorn suckers) are only included in the width estimate when they &gt;0.5m in height.</p> <p>Laid, coppiced, cut and newly planted hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice<sup>3</sup>).</p>
B1. Gap - hedge base	Gap between ground and base of canopy <0.5m for >90% of length (unless 'line of trees')	<p>This is the vertical gappiness of the woody component of the hedgerow, and its distance from the ground to the lowest leafy growth.</p> <p>Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook<sup>4</sup>).</p>
B2. Gap - hedge canopy continuity	Gaps make up <10% of total length and No canopy gaps >5 m	<p>This is the horizontal gappiness of the woody component of the hedgerow. Gaps are complete breaks in the woody canopy (no matter how small).</p> <p>Access points and gates contribute to the overall gappiness but are not subject to the &gt;5 m criterion (as this is the typical size of a gate).</p>
C1. Undisturbed ground and perennial vegetation	>1m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: Measured from outer edge of hedgerow, and Is present on one side of the hedge (at least)	<p>This is the horizontal gappiness of the woody component of the hedgerow. Gaps are complete breaks in the woody canopy (no matter how small).</p> <p>Access points and gates contribute to the overall gappiness but are not subject to the &gt;5 m criterion (as this is the typical size of a gate).</p>

<sup>2</sup> Ian Crosher *et al* 2019. The Biodiversity Metric 2.0: Auditing and accounting for biodiversity value: technical supplement (Beta version, July 2019). Natural England

<sup>3</sup> HedgeLink (<http://hedgelinek.org.uk/index.php>) provides a resource of management advice for hedgerows.

<sup>4</sup> Defra (2007) Hedgerow Survey Handbook. A standard procedure for local surveys in the UK. Defra, London

Attribute	Criteria	Description
C2. Undesirable perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground	The indicator species used are nettles ( <i>Urtica spp.</i> ), cleavers ( <i>Galium aparine</i> ) and docks ( <i>Rumex spp.</i> ). Their presence, either singly or together, should not exceed the 20% cover threshold.
D1. Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native and neophyte species	Neophytes are plants that have naturalised in the UK since AD 1500. For information on neophytes see the JNCC website <sup>5</sup> and for information on invasive non-native species see the GB Non-Native Secretariat website <sup>6</sup> .
D2. Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities	This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes.  This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (e.g., excessive hedge cutting).
<b>Additional group - applicable to hedgerows with trees only</b>		
E1. Tree age	At least one mature tree per 30m stretch of hedgerow. A mature tree is one that is at least 2/3 expected fully mature height for the species.	This criterion addresses if there are sufficient mature trees (within the scope of planning timescales) which are of higher value to biodiversity.
E2. Tree health	At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	This criterion identifies if the trees are subject to damage which compromises the survival and health of the individual specimens.

7.27 From the above list the management will target A1, A2, B1, B2, C2, D1.

<sup>5</sup> <https://jncc.gov.uk/>

<sup>6</sup> <https://www.nonnativespecies.org/>

**HABITAT FEATURES**

- 7.28 A variety of types of bat and bird boxes will be installed on new buildings adjacent to retained and created open space and on retained trees to increase availability of roosting and nesting sites. Log piles, hedgehog houses and invertebrate boxes will also be provided within areas of public open space. Hedgehog gaps will be provided within boundary fences. Specifications of these enhancements are detailed in Table 3 below and the locations of these are shown in Figure 1.

**Table 3: Habitat Feature Specifications**

Target species	Location	Product	Quantity
General bat species	On perimeter buildings facing retained trees / areas of POS.	lbstock enclosed bat brick B;  Small Rect 215 x 215 mm	20
General bat species	On retained trees in clusters of 1x Chillon woodstone bat box and 2x Harlech woodstone bat boxes. Positioned 3-5 m high on varying aspects	Chillon woodstone bat box; 	2
General bat species	On retained trees in clusters of 1x Chillon woodstone bat box and 2x Harlech woodstone bat boxes. Positioned 3-5 m high on varying aspects.	Harlech woodstone bat box; 	4
Swifts	Cluster of 2x swift bricks within close proximity of each other on buildings, positioned high up on gables.	lbstock Eco Habitat for swifts; 	20
House martin	On buildings high up under the eaves.	Woodstone House Martin Nester – double 	10

Target species	Location	Product	Quantity
House sparrow	On buildings high up under the eaves.	VIVARA PRO woodstone sparrow nest box; 	10
Starling	On retained / proposed trees or new garages positioned 2-4 m high.	VIVARA PRO woodstone starling nest box; 	10
General bird species	On retained / proposed trees or new garages positioned 2-4 m high.	VIVARA PRO woodstone nest box 28MM; 	10
General bird species	On retained / proposed trees or new garages positioned 2-4 m high.	VIVARA PRO woodstone nest box 32MM; 	10
General bird species	On retained / proposed trees or new garages positioned 2-4 m high.	VIVARA PRO woodstone open fronted nest box; 	10
Invertebrates, small mammals, amphibians etc.	Lay a stack of logs laid on their side. To prevent them rolling, drive a stake into the ground either side of the pile.	Log piles; 	2

Target species	Location	Product	Quantity
Hedgehog	Placed in an undisturbed corner of the public open space.	Hedgehog House (Haus); 	2
Hedgehog	Gaps maintained in boundary treatments, where feasible due to changes in levels, with information for homeowners to discourage them being covered.	Hedgehog Gap; 	151

- 7.29 The boxes will be sited away from light spill and with a clear flight line leading to them.
- 7.30 The positioning of the boxes is approximate only and will be confirmed by the supervising ecologist when on site.
- 7.31 Given current supply chain issues affecting the manufacture and distribution of habitat boxes, the proposed boxes as detailed below may need to be amended to alternate manufacturers. The specifications of the boxes will, however, be similar to those of the proposed boxes.

**8.0 ANNUAL WORK PROGRAMME**

- 8.1 The annual work program is outlined within the table below. This will cover an initial five-year period and is of capable of being rolled forward over a period of 30 years.

**Table 4: Work Schedule**

Description of works	Years to be undertaken					Aftercare Period
	1	2	3	4	5	5- 30
<b>Native Species Rich Hedgerows and Native Species Rich Hedgerows with Trees</b>						
Planting October and March with biodegradable rabbit protection / tree ties as required. Planting will be avoided when the ground is particularly wet, to	✓					

Description of works	Years to be undertaken					Aftercare Period
	1	2	3	4	5	5- 30
avoid waterlogging, or when the ground is frozen.						
Like for like replacement of failed specimens as required. If gaps arise replant.	✓	✓	✓	✓	✓	✓
During the first five years of establishment of young saplings selective 'spot' spraying or strimming of weeds. Ensure plan species indicative of nutrient enrichment of soils dominate <20% cover of the ground.	✓	✓	✓	✓	✓	
Ensure there are no Schedule 9 of The Wildlife & Countryside Act 1981 (as amended) invasive plant species and neophyte species. Remove invasives in accordance with biosecurity measures under a specialist contractor if present.	✓	✓	✓	✓	✓	✓
Relax management on hedgerows once established to increase height (2-3m), width >1.5m and gaps between the ground and the base of the canopy <0.5m for >90% the length.						✓
Allow grassland along the hedgerow base to grow to provide a graduated sward height and habitat. Ideally at least 1m from the hedgerow.	✓	✓	✓	✓	✓	✓
<b>Other Neutral Grassland (Species Rich Grassland)</b>						
Prepare ground and sow seed in spring or autumn ideally or can be sown at other times of the year if there is sufficient warmth and moisture.	✓					
Meadow grassland is not cut from spring through to late July/August to give the sown species an opportunity to flower. After flowering in July or August take a 'hay cut': cut back with a strimmer to c. 50mm. Leave the 'hay' to dry and shed seed for 1-7 days then remove from site. Mow the re-growth through to late autumn/winter to c 50mm and again in spring if needed.		✓	✓	✓	✓	✓

Description of works	Years to be undertaken					Aftercare Period
	1	2	3	4	5	5- 30
Ensure cover of undesirable species <sup>7</sup> and physical damage (from excessive poaching, damage from machinery use or storage, or any other damaging management activities) is below 5%.		✓	✓	✓	✓	✓
Cover of bracken less than 20% and cover of scrub and bramble less than 5%.		✓	✓	✓	✓	✓
<b>Mixed Native Scrub</b>						
Planting October and March with biodegradable rabbit protection / tree ties as required. Planting will be avoided when the ground is particularly wet, to avoid waterlogging, or when the ground is frozen.	✓					
Firm up plants, remove grass between plants.	✓	✓				
Any dead and dying specimens replaced in first five years.	✓	✓	✓	✓	✓	✓
Cut no more than 1/3 <sup>rd</sup> scrub in any one area in any 5-year period.	✓	✓	✓	✓	✓	✓
Ensure that there are at least three woody species, with no one species comprising more than 75% of the cover		✓	✓	✓	✓	✓
Manage to achieve a good age range – a mixture of seedlings, saplings, young shrubs and mature shrubs.		✓	✓	✓	✓	✓
Ensure pernicious weeds and invasive species make up less than 5% of the ground cover.		✓	✓	✓	✓	✓
Manage to ensure the scrub has a well-developed edge with un-grazed tall herbs.		✓	✓	✓	✓	✓
<b>Habitat Features</b>						
Installation of habitat boxes within new buildings and on existing / new trees throughout the Site.	✓					

<sup>7</sup> creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, common ragwort *Senecio jacobaea*, common nettle *Urtica dioica*, creeping buttercup *Ranunculus repens*, white clover *Trifolium repens*, cow parsley *Anthriscus sylvestris*, marsh thistle *Cirsium palustre* and marsh ragwort *Senecio aquaticus*.

Description of works	Years to be undertaken					Aftercare Period
	1	2	3	4	5	5- 30
Check bat boxes and clean if required by a licensed Bat Ecologist from Futures Ecology.			✓			✓
<b>Other Regular Maintenance</b>						
Litter Removal	✓	✓	✓	✓	✓	✓
Undertake the habitat monitoring assessment (Appendix A) every 3 years as a minimum and implement remedial actions if required. An ecologist will be required to undertake this assessment.			✓			✓

## 9.0 **DETAILS OF THE MANAGEMENT BODY OR ORGANISATION RESPONSIBLE FOR IMPLEMENTATION OF THE BEMP**

- 9.1 The ongoing management of habitats within the site will be the responsibility of Redrow, until such time that the site is passed to a management company. The responsibility to carry out the detailed management within this document will be included within future sale agreements, if applicable.

## 10.0 **DETAILS OF AN ONGOING MONITORING PROGRAMME AND REMEDIAL MEASURES**

- 10.1 The success of measures outlined in the Biodiversity Enhancement & Management Plan will be monitored and recorded in Aftercare Reports every 3 years (as a minimum).
- 10.2 The Plan will be amended, where necessary, and with agreement with the LPA, if management objectives are not being met and contingencies and/or remedial action are required.

## 11.0 **ARRANGEMENTS FOR THE REVIEW AND UPDATE OF THE BEMP EVERY FIVE YEARS AND ITS IMPLEMENTATION FOR A MINIMUM OF 30 YEARS**

- 11.1 The success of measures outlined in the Biodiversity Enhancement & Management Plan will be monitored and recorded in Aftercare Reports every 3 years (as a minimum). A progress report will be sent to the LPA reporting on progress of the work programme and confirmation of required actions for the next management period. The Plan will be reviewed and updated every 3 years and implemented for perpetuity.
- 11.2 The Plan will be amended, where necessary, and with agreement with the LPA, if management objectives are not being met and contingencies and/or remedial action are required.



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## Key

- Site Boundary
- Developed land; sealed surface
- Vegetated garden
- Introduced shrub
- Modified grassland (amenity)
- Other neutral grassland (wildflower meadow)
- Artificial unvegetated, unsealed surface
- Mixed native scrub
- Other neutral grassland (wetland meadow)
- Retained and enhanced hedgerows
- Retained broadleaved trees
- New native Species Rich Hedgerow with trees
- Hedges: Introduced shrub
- Retained tree
- Urban tree small

## Habitat features

- Bird box; comprising 10 starling, 10 open fronted, 10 32mm hole and 10 28mm hole boxes
- 2 x integrated swift bricks
- House sparrow nest box
- House martin nesting feature
- Integrated bat box
- 3 x bat boxes on trees
- Hedgehog gap
- Hedgehog house
- Log pile



0 50 100 m

Client: Redrow Homes (Yorkshire) Ltd, R. Kershaw and S. Gill  
 Project: Bradley Villa Farm, Kirklees  
 Title: Figure 1 - Habitat Management & Enhancement Plan

Plan Reference: FE30\_01  
 Project Reference: FE30  
 Report Reference: FE30/BEMP01

Author: KEH  
 Date: 2/1/2024  
 Scale: NTS@A3



C:\Users\kate.haymes\OneDrive - Futures Ecology Ltd\Projects\FE30 Bradley Villa Farm, Kirklees\QGIS - NEW\1\_Plans\FE30\_Biodiversity Net Gain Plan.qgs  
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