11409: PARCELS A3 AND A5, GREAT WILSEY PARK, HAVERHILL

REDROW HOMES

Landscape and Ecological Management Plan (Pursuant to Condition 42 of DC/15/2151/OUT)

Version	Created By	Approved By	Date
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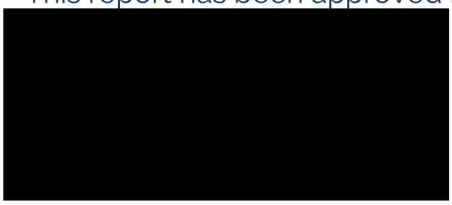

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This report contains sensitive information relating to protected species. The information contained herein should not be disseminated without the prior consent of Ecology Solutions.

Contents

PLANS

APPENDICES

1. Introduction

1.1. Ecology Solutions was commissioned by Redrow Homes in March 2023 to prepare materials to address the requirements of planning conditions for the development of Parcels A3 and A5 at Great Wilsey Park, hereafter referred to as 'the application site' as shown on Plan ECO1 (Planning Application Reference: DC/15/2151/OUT).

1.2. Condition 7 requires that a Landscape and Ecological Management Plan (LEMP) be submitted and approved prior to commencement of the development. The condition states:

No development shall commence within any phase or reserved matters application until a Landscape and Ecological Management Plan (LEMP) for that phase or reserved matters application has been submitted to and approved in writing by the local plann authority. The content of the LEMP shall include the following:

- **a) Description and evaluation of features to be managed including all new and existing woodland and coppiced areas, tree and shrub belts, field margin compensatory habitat, new and existing hedgerows and gapping up of existing areas of grassland, meadow and hedgerow margins with intended management regimes, those parts of the site that contain notable plant species recorded on the site, watercourse margins, attenuation ponds and associated features.**
- **b) Ecological constraints on site and how these influence management.**
- **c) Aims and objectives of management.**
- **d) Appropriate management options for achieving aims and objectives.**
- **e) Prescriptions for management actions.**
- **f) Preparation of a work schedule (including an annual work plan capable of being rolled forward over a five-year period).**
- **g) Details of the body or organisation responsible for implementation of the plan.**
- **h) Ongoing monitoring and remedial measures.**
- **i) Strategy for the provision of information about sensitive habitats through a variety of outlets such as interpretation boards, new resident information packs.**

The management plan for the existing Great Field Plantation woodland must include monitoring of public use of the woodland such that the design of pathways, fencing, hedging and other management operations are iterative, with the aim that the woodland design reflects the needs of the new community. Control of litter and dog waste (within normal refuse collection) can be part of this iterative process. The management plan should identify areas for coppicing to encourage understorey development.

The LEMP shall also include details of the legal and funding mechanism(s) by which the long-term implementation of the plan will be secured and the management body(ies) responsible for its delivery. The plan shall also set out (where the results from monitoring show that conservation aims and objectives of the LEMP are not being met) ho contingencies and/or remedial action will be identified, agreed and implemented so that the development still delivers the fully functioning biodiversity objectives of originally approved details.

The development shall be undertaken in accordance with the approved LEMP. Al elements of the mitigation strategy shall be implemented in accordance with t approved details.

Reason: To ensure the satisfactory development of the site and that wildlife habitats and protected species are considered as part of the design process and are not affected adversely by the development.

1.3. This report sets out the management of features of ecological interest due to be retained and created and describes the wildlife enhancements and mitigation strategies to be implemented as part of the development of the application site.

1.4. This LEMP covers a minimum period of five years and has been written with regard to published guidance from the Chartered Institute of Ecology and Environmental Management (CIEEM)[1] and in accordance with Natural England and other relevant guidelines for protected species. It should be read in conjunction with materials produced by Exterior Architecture, in particular the Site Wide General Arrangement (GA) Plan, Planting Plan Sheets 1 to 12, Planting Schedule and Landscape Report.

1.5. In general, the focus of the ecological mitigation, enhancements and management is on the land covered by the Infrastructure Reserved Matters Application (RMA), which is subject to separate consideration.

1.6. The majority of the land within the application site comprises arable farmland, which is of limited ecological interest and, in general, offers limited opportunities for protected and notable species. Some existing interest is present, however, in the form of the field boundary other neutral grassland, species-rich hedgerow, tree and ditch habitats. These relatively notable habitats are, for the most part, to be retained post-development and incorporated into the proposals, bolstered through new woodland, tree and hedgerow and introduced shrub planting, wildflower grassland seeding and the construction of Sustainable Drainage Systems (SuDS) and swales.

[1]CIEEM (2018). *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine.* Version 1.3. Charted Institute of Ecology and Environmental Management, Winchester.

2. Description and Evaluation of Features to be Managed

2.1. This section sets out the inventory of existing habitats to be retained and managed, identifying features of particular interest or importance that will be priorities for management. This information is derived from work undertaken to inform the outline ES, as well as surveys undertaken by Ecology Solutions across 2022, 2023 and 2025.

2.2. The locations of the habitats to be retained and established as part of this RMA are shown on Plans ECO2a and ECO2b. Further detail is shown on the Site Wide GA Plan, Planting Plan Sheets 1 to 12, Planting Schedule and Landscape Report produced by Exterior Architecture. These plans should be viewed in conjunction with this report.

2.3. Existing and New Woodland and Trees

Existing Woodland and Trees

2.3.1. The management of Great Field Plantation, which is situated directly adjacent to the western boundary of Parcel A5, is detailed within the LEMP produced to inform the infrastructure RMA in addition to the separate Woodland Management Plan (WMP). No further woodland is present on-site.

2.3.2. Four mature trees are associated with the boundary hedgerows, with these to be protected and retained post-development. This includes three Oak *Quercus robur* trees and a single Goat Willow *Salix caprea* tree.

New Woodland and Trees

2.3.3. New woodland / whip planting is to be established towards the eastern and northern boundaries of the application site and will be accompanied by ground flora seeding.

2.3.4. Numerous native, native cultivar and non-native and individual trees will be planted throughout the application site. This will help to increase the diversity of tree species within the site, while improving connectivity and offering habitats for invertebrates and, once matured, nesting birds.

2.4. Existing and New Hedgerows

Existing Hedgerows

2.4.1. Two unmanaged species-rich native hedgerows are associated with the western and southern boundaries of Parcel A3. These hedgerows are approximately 3m tall and wide and comprise Dogwood *Cornus sanguinea* (A[2]), Blackthorn *Prunus spinosa* (A), Bramble *Rubus fruticosus* (A), Hazel *Corylus avellana* (O), Hawthorn *Crataegus monogyna* (O), Elm *Ulmus* sp. (O) and Goat Willow (R). A further well-managed hedgerow is situated along the eastern boundary of Parcel A5. This hedgerow is also approximately 3m tall and wide, however, comprises Field Maple *Acer campestre* (D), Hawthorn (D), Sycamore *Acer pseudoplatanus* (O), Ash *Fraxinus excelsior* (O), Blackthorn (O), Bramble

[2]DAFOR Scale: D: Dominant, A: Abundant, F: Frequent, O: Occasional, R: Rare.

(O), Oak (R), Dog Rose *Rosa canina* (R) and Elder *Sambucus nigra* (R).

2.4.2. The majority of these hedgerows are to be retained post-development, albeit with a small loss to facilitate access between Parcels A3 and A5.

New Hedgerows.

2.4.3. New hedgerow planting will include a mix of native and non-native species, with these to bolster the retained planting, contributing towards the provision of green infrastructure post-development.

2.5. Existing and New Grassland

Existing Grassland

2.5.1. Other neutral grassland with a relatively long sward height forms the majority of the field boundaries for the application site, albeit with a small area of modified grassland with a relatively limited species assemblage also present associated with the northern boundary of Parcel A5.

2.5.2. While arable field margins are listed as a habitat of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 (as amended), as well as being a Suffolk Biodiversity Action Plan (BAP) Habitat, the margins within Parcels A3 and A5 are considered to be of negligible nature conservation interest owing in part to their easily replicable nature.

New Grassland

2.5.3. A variety of wildflower rich seed mixes are to be established throughout the application site, including species-rich low flowering swards for amenity areas, wildflower meadows (particularly associated towards the western boundary of the application site), a shade tolerant mix to be associated with the woodland planting and a wet meadow mix, which will be incorporated into the attenuation features. This seeding will increase the floristic diversity and amenity value of the application site.

2.6. Existing and New Attenuation Features and Ditches

Existing Attenuation Features and Ditches

2.6.1. Four dry / seasonally wet ditches are present within the application site. Three of these are associated with hedgerows and, given the extent of shading, are sparsely vegetated with a high percentage of bare ground. The fourth ditch, located towards the eastern boundary of Parcel A3, differs in that it is not associated with a hedgerow. The flora on the eastern bank is a continuation of the adjacent off-site species-poor modified grassland beyond the eastern site boundary, while the flora on the western bank of the ditch is a continuation of the adjacent unmanaged other neutral grassland field boundary.

2.6.2. These ditches are largely to be retained and incorporated into the proposed development.

New Attenuation Features

2.6 .3. Several SuDS and swales are proposed around the boundaries of Parcels A3 and A5. These areas will be associated with wet grassland seeding and marginal planting.

2.7. Ornamental Planting

2.7.1. Areas of ornamental planting are proposed associated with the residential properties and transportation corridors to increase aesthetic value of the application site. Planting will include flowering species, beneficial to a variety of invertebrates and pollinators.

2.8. Hard Landscaping

2.8 .1. The development will necessitate the use of hard landscaping with a variety of surface materials selected to define the various functions of landscaped spaces, roads and pedestrian pathways and cycleways. Hard landscape areas will be designed to be physically robust and of a quality appropriate to the application site.

3. Ecological Constraints

3.1. This document has been informed by the background information accrued for the outline ES and by the updated surveys undertaken on the application site by Ecology Solutions across 2022, 2023 and 2025.

3.2. Habitats of value in the context of the application site include the field margin species-rich hedgerow, tree, ditch and other neutral grassland habitats. The majority of the application site; however, consists of intensively managed arable farmland of intrinsically of low ecological interest.

3.3. None of these habitats pose an overriding ecological constraint in themselves, with the majority of the habitats of greater value being retained and enhanced.

3.4. [redacted]

3.5. All on-site trees were recently subject to an assessment to determine their suitability for roosting bats in May 2025, to inform the Ecological Assessment. Two mature Oak trees were identified as offering suitability to support single or very low numbers of bats (categorized as PFR-I), with Potential Roosting Features (PRFs) including broken branches and loose bark. A series of ongoing activity transect surveys and static bat detector deployments undertaken have also identified the presence of nine bat species utilising the application site for foraging and commuting purposes. The majority of the registrations recorded across this survey effort were attributed to Common Pipistrelle *Pipistrellus pipistrellus* and Soprano Pipistrelle *Pipistrellus pygmaeus*, both common and widespread species.

3.6. Although the application site offers suitability for Hazel Dormouse *Muscardinus avellanarius* in the form of the bounding and intersecting species-rich native hedgerows, complemented through the adjacent Great Field Plantation, no evidence of Dormouse activity has been confirmed to date in the ongoing surveys conducted in 2023 and 2025.

3.7. Other notable mammal species considered likely to utilise the application site to some degree include Hedgehog *Erinaceus europaeus*, Harvest Mouse *Micromys minutus* and Brown Hare *Lepus europaeus*. Although not observed within the application site, suitable habitat for Hedgehogs and Harvest Mice are present on-site in the form of the other neutral grassland and hedgerow field boundary habitat, with the latter of these species observed within the wider Redrow development. Given this, it is considered plausible that these species would utilise the site at least to some degree. Brown Hare has also not been observed within the application site; however, given that this species has been sighted within the former arable field adjacent to Parcel A3, combined with the presence of arable farmland on-site, which offers suitability for this species, it is considered that this species may use the application site to some degree.

3.8. An assemblage of wintering and breeding birds have been identified within the application site across surveys conducted in 2022, 2023 and 2025. This includes several species listed under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), Section 41 of the NERC Act 2006 and / or the Birds of Conservation Concern (BoCC) 5 Red and Amber Lists. Habitats of particular relevance to nesting birds include the hedgerows, trees and adjacent off-site woodland, with the arable farmland and other neutral grassland also offering suitability for ground nesting species, such as Skylark *Alauda arvensis*.

3.9. The other neutral grassland field margins with a relatively long sward height were identified as offering suitability for common reptile species, with small populations of Grass Snake *Natrix helvetica* and Common Lizard *Zootoca vivipara* confirmed to be present in ongoing surveys to date.

3.10. No waterbodies considered to be suitable for Great Crested Newts *Triturus cristatus* are present on or adjacent to the application site, with eDNA surveys conducted on ponds within 500m of the site not separated by a dispersal barrier in April 2025 indicating an absence of this species within these features. While they have not been observed within the application site, it is, however, considered that Common Toads *Bufo bufo* may utilise the site to some degree. given that this species is known to be present within the wider Redrow development combined with the existence of suitable habitat for this species, albeit limited to the field margins.

3.11. Given the habitats recorded within the application site it is expected that there would be an assemblage of common invertebrates present, although there is no reason to suspect the likely presence of any scarce or notable invertebrate species.

3.12. The presence of these species does not represent an insurmountable constraint to development. Nevertheless, the management prescriptions set out in t following pages have regard to the potential presence of these species within existing and proposed habitats and the need for sympathetic treatment.

3.13. Overall, this RMA possesses excellent potential for wildlife gains, in combination with the measures proposed for the Infrastructure RMA, retaining the majority of the best existing habitats, while promoting new opportunities through strategies for green networks. The establishment of new habitats and future management of the network will deliver significant benefits.

3.14. The ecological constraints present on site have influenced this management plan and the Ecological Implementation Strategy (EIS) for the RMA. This LEMP and the EIS should be considered together, along with materials produced by Exterior Architecture, in particular the Site Wide GA Plan, Planting Plan Sheets 1 to 12, Planting Schedule and Landscape Report.

4. Aims and Objectives of Management

4.1. This section sets out the vision and conservation objectives for the application site strategy.

> The vision for the strategy is to create a framework of multi-functional green infrastructure and soft landscaping permeating the application site, which will, through appropriate management of the various features and habitats, prov a semi-natural environment for the new residents. The strategy will protect a enhance existing site biodiversity.

4.2. Defining the Conservation Objectives

4.2.1. Defining a set of objectives is central to the effectiveness of this strategy, given that it is intended to provide a framework that will safeguard existing nature conservation interest and provide guidance on enhancement and future management.

4.2.2. Specific objectives for the conservation of particular species or groups and particular habitats of nature conservation interest are set out in the relevant sections to follow. The nature of these objectives has been guided by the principles set out in UK and European wildlife legislation, notably the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitat and Species Regulations 2017. Furthermore, the formulation of these objectives has also been influenced by national and local biodiversity and conservation targets, as set out in the UK Post-2010 Biodiversity Framework and the Suffolk BAP.

4.2.3. The general objectives for this LEMP are as follows:

Create an attractive and well cared-for setting for the development;

Ensure the successful implementation, establishment and longevity of the planting scheme and external treatments;

Ensure the landscape contributes positively to the users;

Ensure the landscape contributes positively to the site context;

Enhance and protect the native flora and fauna (both existing and proposed); and

Enhance biodiversity and ecology wherever possible.

4.2.4. The overarching objectives for nature conservation are as follows:

Objective 1

4.2.5. *To safeguard species important in the national and local context and to maintain or enhance their conservation status as appropriate.*

Objective 2

4.2.6 . *To ensure that the site continues to support a similar complement of species to that already existing.*

Objective 3

4.2.7. *To enhance the biodiversity of the site, where this is compatible with the above objectives*.

4.3. Achieving the Objectives

4.3.1. Information on the existing situation at the application site and its environs with regard to any habitats of ecological interest and the presence o protected species has been collated as part of the preparation of th document and it is upon this foundation that the specific enhancements and management prescriptions to follow are based.

4.3.2. Where appropriate, specific objectives are defined in the sections to follow.

4.3.3. The LEMP, and the various measures described in the following sections, are illustrated on Plans ECO2a and ECO2b.

4.3.4. This document should be read in conjunction with the materials produced by Exterior Architecture, namely the Site Wide GA Plan, Planting Plan Sheets 1 to 12, Planting Schedule and Landscape Report, in addition to the EIS.

5. Woodland

5.1. This section is concerned with the establishment and management of ne woodland habitat, as shown on Plans ECO2a and ECO2b and materials produced by Exterior Architecture.

5.2. Conservation Objectives

General Objective

To establish high quality new habitats using appropriate species mixes.

Specific Objective

To ensure early establishment and healthy growth.

5.3. Planting Schedule

5.3.1. Newly established areas of woodland along the northern and easter boundaries of the application site will comprise a mix of native (of local provenance) and non-native trees, as detailed in Table 7.1 below.

5.3.2. This woodland fringe planting is proposed to develop over 50 years and, in addition to improving connectivity across site for a range of faunal groups, will act as a buffer to separate the eastern boundary from the adjacent arable land.

Table 5.1. New woodland 'whip' planting composition.

Species
White-barked Himalayan Birch *Betula utilis* 'Jacquemontii'
Common Hawthorn *Crataegus monogyna*
Crab Apple *Malus* sp. 'Evereste'
Common Crab Apple *Malus sylvestris*
Scots Pine *Pinus sylvestris*
Aspen *Populus tremula*
Wild Cherry *Prunus avium*
Sessile Oak *Quercus petraea*
Rowan *Sorbus aucuparia*
Common Lime *Tilia x europaea*

Bat Hop

5.3.3. A new 'Bat Hop' is proposed in the north-western corner of Parcel A5 to facilitate the continued movement of foraging and dispersing bats between the adjacent off-site Great Field Plantation and the retained hedgerows bounding the parcels. This will comprise of trees with a continuous canopy

from the woodland into the application site, extending into the 'Green Link' between parcels A3 and A5.

5.4. Initial Aftercare and Long-term Management and Maintenance Procedures

5.4.1. Planting of new trees will be undertaken during the autumn, winter or spring.

5.4.2. Trees will be inspected every six months for the first two years to ensure that they are healthy and not diseased, damaged, or dead. After the first two years, trees can be inspected annually if found to be establishing well.

5.4.3. Any trees that fail to establish within the first five years will be replaced with the same species of local provenance to the same specification and maintained for a subsequent five years. Tree replacement will occur in early spring or late autumn.

5.4.4. Trees will be triple-staked with a timber cross bar and soft string ties and will be protected with 600mm spiral Rabbit *Oryctolagus cuniculus* biodegradable guards. When no longer necessary, typically after three to five years, guards and stakes may be removed from the planting.

5.4.5. Watering will be required during periods of drought for no less than the first three years after planting to ensure satisfactory establishment.

5.4.6. Weeds, litter and debris around the woodland planting will be removed, as necessary.

5.4.7. Arboricultural management, such as pruning, will be carried out by a qualified arboriculturist outside the bird nesting season (March – August inclusive) to avoid any potential offence, or within this period only after a Suitably Qualified Ecologist (SQE) has undertaken checks to ensure no nesting birds are present. Any active nests recorded, works will cease immediately and nest sectioned off by a 5m buffer (buffer is dependent on species and vegetation cover). The nest will remain in-situ until the young have successfully fledged following confirmation by a SQE. Emergency pruning will be undertaken immediately after a critical fault is identified.

5.4.8. Thinning may occur, as necessary, to allow for the development of ar understorey / ground flora.

Wildlife Enhancements

5.4.9. Woodland planting will provide foraging and commuting opportunities for Badgers, bats, birds and Hedgehogs, in addition to potential nesting and roosting opportunities for birds and bats respectively, once the habitat has matured. Log piles formed from the management of this habitat and the adjacent Great Field Plantation will provide continued opportunities for reptiles, hedgehogs and saproxylic invertebrates.

6. Individual Trees

6.1. This section is concerned with the establishment and management of the new tree planting throughout the application site as shown on Plans ECO2a and ECO2b and the documentation produced by Exterior Architecture.

6.2. Conservation Objectives

General Objectives

To establish high quality new habitats using appropriate species mixes.

To manage these habitats appropriately to maximise botanical and wild interest.

Specific Objectives

To ensure early establishment and healthy growth.

To create a well-shaped framework for future balanced growth.

To enhance appearance and visual interest.

6.3. Planting Schedule

6.3.1. New tree planting associated with the application site will include a mix of native, native cultivar and non-native species as set out in Table 6.1 below.

Table 6.1. Individual tree planting composition.

Species
Field Maple *Acer campestre*
Field Maple *Acer campestre* 'Streetwise'
Red Maple *Acer rubrum*
Cut-leaf Alder *Alnus glutinosa* 'Laciniata'
Silver Birch *Betula pendula*
Common Hornbeam *Carpinus betulus*
Atlas Cedar *Cedrus atlantica*
Lawson Cypress *Chamaecyparis lawsoniana* 'Golden Wonder'
Japanese Red Cedar *Cryptomeria japonica*
Sweet Gum *Liquidambar styraciflua*
Apple *Malus domestica* 'Discovery'
Common Crab Apple
Pedunculate Oak
Whitebeam *Sorbus aria* 'Majestica'
Rowan
Small-leaved Lime *Tilia cordata* 'Streetwise'

6.4. Initial Aftercare and Long-term Management and Maintenance Procedures

6.4.1. Individual trees will be planted during the autumn, winter or spring.

6.4.2. Trees will be inspected every six months for the first two years to ensure that they are healthy and not diseased, damaged, or dead. After the first two years, trees can be inspected annually if found to be establishing well.

6.4.3. Any trees that fail to establish within the first five years will be replaced with the same species of local provenance to the same specification and maintained for a subsequent five years. Tree replacement will occur in early spring or late autumn.

6.4.4. Trees will be triple-staked with a timber cross bar and soft string ties and be protected with 600mm spiral Rabbit biodegradable guards. When no longer necessary, typically after three to five years, guards and stakes may be removed from the planting.

6.4.5. Watering will be required during periods of drought for no less than the first three years after planting to ensure satisfactory establishment.

6.4.6. A 500 mm radius weed-free ring will be maintained around each tree for the first five years to reduce competition from weed species for light ar nutrients. This can be achieved by maintaining a layer of bark mulch (75mm settled depth) around the base of each tree and by removing any weeds by hand. The mulch will be replenished every six months, as necessary, to maintain the desired depth.

6.4.7. Litter and debris around the tree planting will be removed as necessary.

6.4.8. Arboricultural management, e.g. pruning, will be carried out by a qualified arboriculturist outside the bird nesting season (March – August inclusive) to avoid any potential offence, or within this period only after a SQE ha undertaken checks to ensure no nesting birds are present. Any active nests recorded, works will cease immediately and nest sectioned off by a 5m buffer (buffer is dependent on species and vegetation cover). The nest will remain in-situ until the young have successfully fledged following confirmation by a SQE. Emergency management will be undertaken immediately after a critical fault is identified.

Wildlife Enhancements

6.4.9. The retained and new individual tree planting will provide continued foraging and dispersal opportunities for bats and birds. Once the trees have matured, they may also offer nesting suitability and, should they develop PRFs over time, roosting opportunities.

7. Hedgerows

7.1. This section is concerned with the establishment of new hedgerows and the retention and management of existing hedgerows throughout the application site as shown on Plans ECO2a and ECO2b and Exterior Architectures Site Wide GA Plan, Planting Plan Sheets 1 to 12, Planting Schedule and Landscape Report.

7.2. Conservation Objectives

General Objectives

To maintain and establish high quality new habitats of ecological value.

To manage hedgerows to promote dense structure and enhanced habi wildlife.

Specific Objectives

To ensure early establishment and healthy growth.

To create a well-shaped framework for future balanced growth.

To maintain and manage appearance / height.

7.3. Planting Schedule

7.3.1. New hedgerow planting will comprise a mix of native and non-native species, as detailed below in Table 7.1.

Table 7.1 Hedgerow planting composition.

Species
Field Maple
Common Dogwood
Common Hazel
Orange Cotoneaster *Cotoneaster franchetii*
Common Hawthorn
Common Spindle Tree *Euonymus europaeus*
Common Privet *Ligustrum vulgare*
Common Crab Apple
Wild Cherry
Dog Rose
Common Elder
Guelder Rose *Viburnum opulus*

7.4. Initial Aftercare and Long-term Management and Maintenance Procedures

7.4.1. Planting of new hedgerows will be undertaken during the autumn, winter or spring.

7.4.2. Hedgerows will be inspected every six months for the first two years to ensure that they are healthy and not diseased, damaged, or dead. After the first two years, inspections may then be conducted annually if found to be establishing well.

7.4.3. Any shrubs within the hedgerows found to have failed within the first five years will be replaced and maintained for a subsequent five years Replacement planting will utilise the same species of local provenance to the same specification as the failed planting and will occur in early spring or late autumn.

7.4.4. Hedgerows will be planted in double rows and surrounded by mulch matting throughout their establishment to keep their surroundings free of weeds, subsequently reducing competition for light and nutrients.

7.4.5. Watering will be required during periods of drought for no less than the first three years after planting to ensure satisfactory establishment.

7.4.6. Litter and debris around the hedgerows will be removed as necessary.

7.4.7. Annual pruning / trimming will be carried out outside the bird nesting season (March to August inclusive) to avoid any potential offence, or within this period only after a SQE has undertaken checks to ensure no nesting birds are present. Any active nests recorded, works will cease immediately and nest sectioned off by a 5m buffer (buffer is dependent on species and vegetation cover). The nest will remain in-situ until the young have successfully fledged following confirmation by a SQE.

7.4.8. The retained hedgerows will also be laid on rotation by an experienced contractor, where appropriate, to encourage greater structural diversity and prevent gap formation.

Wildlife Enhancements

7.4.9. Retained native hedgerows will act as wildlife corridors, supporting foraging and commuting opportunities for bats, birds and Hedgehogs, in addition to nesting opportunities for a range of bird species. They would also b beneficial for small mammal species, such as Hazel Dormice, should they colonise the application site.

8. Grassland

8.1. This section is concerned with the establishment of grassland seed mix throughout the application site as shown on Plans ECO2a and ECO2a and the materials produced by Exterior Architecture.

8.2. Conservation Objectives

General Objectives

To establish high quality new habitats using appropriate species mixes.

To maintain formal areas of grassland for greater recreational use.

To manage these habitats appropriate to maximise botanical and wildlife interes

Specific Objectives

To enhance appearance and visual interest in amenity areas.

To create an attractive grass sward with height and colour.

8.3. Planting Schedule

8.3.1. Grassland seeding throughout the application site will include low flowering species-rich lawns managed for recreational and amenity purposes, in addition to wildflower meadows and woodland and wet grass area established for the benefit of wildlife.

8.3.2. The seed mixes utilised include EL1 Flowering Lawn Mixture, EM2F Standard General Purpose Wild Flowers, EL1F Wild Flowers for Lawns, RE3 Water Meadow and EW1 Woodland Mixture from Emorsgate. The species assemblages of these are detailed individually below in Tables 8.1 to 8.5.

Table 8.1. Emorsgate EL1 Flowering Lawn Mixture seed mix composition.

Species	Percentage Composition (%)
Wildflowers	
Yarrow *Achillea millefolium*	1.00%
Kidney Vetch *Anthyllis vulneraria*	1.00%
Betony *Betonica officinalis*	0.40%
Common Knapweed *Centurea nigra*	1.50%
Hedge Bedstraw *Galium album*	0.40%
Lady's Bedstraw *Galium verum*	1.50%
Field Scabious *Knautia arvensis*	0.40%
Rough Hawkbit *Leontodon hispidus*	0.50%
Oxeye Daisy *Leucanthemum vulgare*	1.00%

Black Medick *Medicago lupulina*	1.00%
Ribwort Plantain *Plantago lanceolata*	0.40%
Hoary Plantain *Plantago media*	2.00%
Cowslip *Primula veris*	2.00%
Selfheal *Prunella vulgaris*	0.40%
Meadow Buttercup *Ranunculus acris*	0.40%
Bulbous Buttercup *Ranunculus bulbosus*	1.60%
White Clover *Trifolium repens*	4.00%
Total	**20.00%**
Grasses	
Common Bent *Agrostis capillaris*	8.00%
Crested Dog'stail *Cynosurus cristatus*	28.00%
Red Fescue *Festuca rubra*	24.00%
Smaller Cat's-tail *Phleum bertolonii*	4.00%
Smooth-stalked Meadow-grass *Poa pratensis*	16.00%
Total	**80.00%**

Table 8.2. Emorsgate EM2F Standard General Purpose Wild Flowers seed mix composition.

Species	Percentage Composition (%)
Wildflowers	
Yarrow	5.00%
Betony	5.00%
Common Knapweed	15.00%
Wild Carrot *Daucus carota*	10.00%
Lady's Bedstraw	2.50%
Meadow Cranesbill *Geranium pratense*	2.50%
Oxeye Daisy	9.00%
Ribwort Plantain	10.00%
Salad Burnet *Poterium sanguisorba* ssp. *sanguisorba*	10.00%
Cowslip	7.00%
Selfheal	7.50%
Meadow Buttercup	8.00%
Bulbous Buttercup	1.00%
Common Sorrel *Rumex acetosa*	2.50%
Bladder Campion *Silene vulgaris*	5.00%
Total	**100.00%**

Table 8.3. Emorsgate EL1F Wild Flowers for Lawns seed mix composition.

Species	Percentage Composition (%)
Wildflowers	
Kidney Vetch	2.00%
Betony	5.00%
Common Knapweed	10.00%
Hedge Bedstraw	5.00%
Lady's Bedstraw	8.00%
Field Scabious	3.50%
Rough Hawkbit	1.00%
Oxeye Daisy	7.00%
Black Medick	5.00%
Ribwort Plantain	12.00%
Cowslip	10.00%
Selfheal	3.50%
Bulbous Buttercup	6.00%
White Clover	22.00%
Total	**100%**

Table 8.4. Emorsgate RE3 Water Meadow seed mix composition.

Species	Percentage Composition (%)
Wildflowers	
Meadowsweet *Filipendula ulmaria*	0.50%
Water Avens *Geum rivale*	0.10%
Soft Rush *Juncus effusus*	0.60%
Oxeye Daisy	3.60%
Ragged Robbin *Lychnis flos-cuculi*	0.10%
Ribwort Plantain	4.00%
Selfheal	2.00%
Meadow Buttercup	1.90%
Yellow Rattle *Rhinanthus minor*	0.80%
Salad Burnet *Sanguisorba minor*	1.30%
Greater Stitchwort *Stellaria holostea*	0.10%
Dandelion *Taraxacum officinale*	1.00%
Red Clover *Trifolium pratense*	2.00%
White Clover	2.00%
Total	**20.00%**

Species	Percentage Composition (%)
Wildflowers	
Grasses	
Common Bent	2.50%
Creeping Bent *Agrostis stolonifera*	2.50%
Crested Dogstail	20.00%
Meadow Fescue *Festuca pratensis*	5.00%
Slender Creeping Red Fescue *Festuca rubra* ssp. *rubra*	25.00%
Yorkshire Fog *Holcus capillaris*	2.50%
Perennial Rye Grass *Lolium perenne*	5.00%
Timothy *Phleum bertolonii*	2.50%
Smooth-stalked Meadow-grass	15.00%
Total	**80.00%**

Table 8.5. Emorsgate EW1 Woodland Mixture seed mix composition.

Species	Percentage Composition (%)
Wildflowers	
Garlic Mustard *Alliaria petiolata*	2.00%
Ramsons *Allium ursinum*	1.00%
Wild Angelica *Angelica sylvestris*	0.50%
Cow Parsley *Anthriscus sylvestris*	1.40%
Lords-and-Ladies *Arum maculatum*	0.20%
Foxglove *Digitalis purpurea*	4.00%
Hemp-agrimony *Eupatorium cannabinum*	0.10%
Meadowsweet	0.90%
Hedge Bedstraw	1.50%
Water Avens	0.10%
Wood Avens *Geum urbanum*	2.00%
Bluebell *Hyacinthoides non-scripta*	1.60%
Primrose *Primula vulgaris*	0.10%
Selfheal	1.00%
Meadow Buttercup	0.40%
Red Campion *Silene dioica*	3.00%
Wood Sage *Teucrium scorodonia*	0.20%
Total	**20.00%**
Grasses	
Common Bent	2.40%

Species	Percentage Composition (%)
Grasses	
Sweet Vernal-grass *Anthoxanthum odoratum*	1.60%
False Brome *Brachypodium sylvaticum*	0.80%
Crested Dogstail	48.0%
Tufted Hair-grass *Deschampsia cespitosa*	1.60%
Red Fescue	19.20%
Wood Meadow-grass *Poa nemoralis*	6.40%
Total	**80.00%**

8.4. Initial Aftercare and Long-term Management and Maintenance Procedures

8.4.1. The seed mixes are best sown in the autumn or spring but can be sown at other times of the year if there is sufficient warmth and moisture.

8.4.2. Should an area of grassland fail to establish, it will be re-seeded with the same seed mix in the following suitable season. Should the same seed mix be unavailable at time of ordering, the project ecologist will be consulted and advise on suitable replacement.

8.4.3. Watering will be required during periods of drought to ensure satisfactory establishment. Watering will be undertaken as required to maintain healthy plant growth.

8.4.4. Litter and debris around the hedgerows will be removed as necessary.

8.4.5. **Emorsgate EM2F Standard General Purpose Wild Flowers and Emorsgate RE3 Water Meadow.** Newly sown wildflower meadows and grassland seeding associated with the attenuation features will be mown regularly throughout the first year of establishment to a height of 40-60mm. This will control annual weeds and help maintain balance between faster and slower developing species. During this period, cuttings will be removed, if dense, and residual perennial weeds will be carefully dug out or spot treated.

8.4.6. In subsequent years traditional meadow management will be pursued. This will a single cut to 50mm after flowering in July or August. The cuttings will then be left to dry and shed seed for 1-7 days, after which they will be retained as ‘habitat piles’ in suitable locations to encourage common reptiles.

8.4.7. **Emorsgate EW1 Woodland Mixture.** Associated with the newly established woodland / whip planting, this mix is expected to require very little ongoing management.

8.4.8. That said, in young or open woodland with higher light levels, the mix should be cut annually in mid-summer until the tree cover has established.

8.4.9. **Emorsgate EL1 Flowering Lawn Mixture and Emorsgate EL1F Wild Flowers for Lawns.** Newly sown wildflower rich amenity lawns should be mown every 7-10 days during the growing season of the first year to a height of 40-60mm. Residual perennial weeds will be carefully dug out or spot treated.

8.4.10. After the first year, the grass will be mown regularly to a height of 25-40mm. Management can be relaxed from late June for 4-8 weeks to allow for flowering (mowing may be suspended earlier to allow for Cowslip to flower). Heavy quantities of cuttings should be collected and removed from site.

Wildlife Enhancements

8.4.11. New wildflower rich grassland mixes will aid in attracting a greater number and variety of insects and pollinators, with these heightening food resource for foraging bats, birds and small mammals. The area will also be able to support amphibians, in their terrestrial phase, and common reptile species, with arisings to be retained in ‘habitat piles’ around site for the benefit of this group.

9. Introduced Shrub

9.1. This section is concerned with establishment of introduced shrub throughout the application site. This planting, which is associated with the residential frontages and transportation corridors, is primarily for ornamental purposes; however, will also contribute towards the provision of green infrastructure.

9.2. Conservation Objectives

General Objectives

To establish areas of ornamental planting to provide new habitats of ecolog and visual value.

Specific Objectives

To manage habitat to offer benefits for invertebrates, in particular.

9.3. Planting Schedule

9.3.1. Several different mixes of ornamental plants will be utilised across the application site for differing purposes. This includes woodland species for areas that are seeking to booster connections with the wider adjacent landscaping, a village green mix aiming to enhance the amenity value of this area, road buffer planting which will screen the transportation corridors, and differing ornamental mixes for residential frontages across the application site. These are detailed individually below in Tables 9.1 to 9.5.

Table 9.1. Village Green Mix composition.

Species
Japanese Anemone *Anemone hupehensis*
Common Snowdrop *Galanthus nivalis*
White Bloody Cranesbill *Geranium sanguineum* 'Album'
Autumn Ox-eye *Leucanthemella serotina*
Snowy Wood-rush *Luzula nivea*
Daffodil *Narcissus* sp. 'Mount Hood'
Common Bistort *Persicaria bistorta*
Lesser Periwinkle *Vinca minor* 'Argenteovariegata'

Table 9.2. A3-NE Ornamental Mix composition.

Species
Hard Fern *Blechnum spicant*
Japanese Sedge *Carex morrowii* 'Ice Dance'
Foxglove
Mrs Robb's Bonnet *Euphorbia amygdaloides* var. *robbiae*

Species
White Bloody Cranesbill 'Album'
Christmas Rose *Helleborus niger*
White Lesser Periwinkle *Vinca minor* 'Alba'

Table 9.3. A3-SW Ornamental Mix, A5-NE Ornamental Mix and A5-SW Ornamental Mix composition.

Species
Ornamental Onion *Allium* sp. 'Mount Everest'
Ornamental Onion *Allium* sp. 'Purple Sensation'
Cranesbill *Geranium* sp. 'Orion'
lavender *Lavandula angustifolia*
Nest Moor Grass *Sesleria nitida*
Lambs' Ears *Stachys byzantina*
White Lesser Periwinkle 'Alba'

Table 9.4. Road Buffer composition.

Species
Christmas Rose
Box-leaved Holly *Ilex crenata*
Fortune's Osmanthus *Osmanthus* x *fortunei*
Japanese Spurge *Pachysandra terminalis*
Sweet Box *Sarcococca confusa*
Common Yew *Taxus baccata*
Common Gorse *Ulex europaeus*

Table 9.5. Woodland Mix composition.

Species
Siberian Bugloss *Brunnera macrophylla*
Christmas Rose
Box-leaved Holly
Japanese Spurge
Sweet Box
Common Yew
White Lesser Periwinkle 'Alba'

9.4. Initial Aftercare and Long-term Management and Maintenance Procedures

9.4.1. Introduced shrub planting will be undertaken during the autumn, winter or spring.

9.4.2. Introduced shrubs will be inspected monthly for the first year after planting, to ensure that they are healthy and not diseased, damaged, or dead, with bi-monthly inspections to occur thereafter, if found to be establishing well.

9.4.3. Any introduced shrubs found to have failed within the first five years will be replaced with the same species to the same specifications and maintained for a subsequent five years.

9.4.4. Introduced shrubs will be surrounded by a layer of bark mulch approximately 75mm deep to reduce competition from weed species for light and nutrients. This mulch will be replenished every six months, as necessary, to maintain the desired depth.

9.4.5. If particular species are spreading vigorously and impacting other species' establishment or success, they will be divided, and the excess plant material removed from the application site.

9.4.6. The removal of undesirable weed species will occur on a monthly basis. The use of pesticides (herbicides, insecticides, fungicides and slug pellets, etc.) will be avoided, where possible, with removal instead to be undertaken by hand.

9.4.7. Deadheading of herbaceous plants will be undertaken following flowering and when flower heads have died off, on an annual basis between August and November depending on the species used. All arisings are to b removed.

9.4.8. The dead stems of grasses and perennial species from the previo summer's growth will be cut back after the winter period (mid to late March) annually, with all arisings again to be removed and disposed of off-site.

9.4.9. Watering will be required during periods of drought for no less than the first three years after planting to ensure satisfactory establishment.

9.4.10. Litter and debris around the introduced shrub will be removed as necessary.

Wildlife Enhancements

9.4.11. The planting of ornamental flowering species will increase the aesthetic and floristic diversity of the application site providing new opportunities for a range of invertebrates and pollinators, increasing the biodiversity of the site. These increases in invertebrates will offer elevated food resources for bats and birds.

10. Attenuation Features

10.1. This section is concerned with the retained ditches bounding the application site and the creation of new SuDS, swales and the establishment of their associated habitats.

10.2. Conservation Objectives

General Objectives

To enhance existing riparian habitat.

To establish high quality new habitats using appropriate species mixes.

Specific Objectives

To maintain formal areas of grassland for greater recreational use.

To manage these habitats appropriate to maximise botanical and wildlife interes

10.3. Planting Schedule

10.3.1. Existing ditches are to be protected and retained post-development, being incorporated into the landscape proposals as illustrated on Exterior Architectures Site Wide GA Plan, Planting Plan Sheets 1 to 12, Planting Schedule and Landscape Report.

10.3.2. New SuDS and swale plating will comprise of a wet wildflower grassland seed mix (Emorsgate RE3 Water Meadow), which is detailed above in Section 8, alongside marginal planting (see Table 10.1 below).

Table 10.1. SuDS Mix composition.

Species
Marsh Marigold *Caltha palustris*
Lesser Pond Sedge *Carex acutiformis*
Common Spike Rush *Eleocharis palustris*
Water Avens
Yellow Flag Iris *Iris pseudacorus*
Purple Loosestrife *Lythrum salicaria*
Water Mint *Mentha aquatica*
Reed Canary Grass *Phalaris arundinacea*

10.4. Initial Aftercare and Long-term Management and Maintenance Procedures

10.4.1. The SuDS Mix planting will require relatively little management; however, should any of these plants fail to establish they will be replaced with the same species of local provenance to the same specification during the following

planting season. Management of grassland within SuDS and swales will be conducted in line with the recommendations detailed within Section 8 above.

10.4.2. Watering will be required during periods of drought to ensure satisfactory establishment. Watering will be undertaken as required to maintain healthy plant growth.

10.4.3. Litter and debris within retained and newly established features will be removed as necessary.

10.4.4. No fertilizers will be used on, or in the vicinity of, either the retained ditches or the newly constructed SuDS and swales.

Wildlife Enhancements

10.4.5. The establishment of new attenuation features across the application site will be beneficial for invertebrates, in turn increasing food resource for bats, birds and small mammals. Furthermore, these features will elevate opportunities for amphibians such as the Common Toad.

11. Hard Landscaping

11.1. This section is concerned with the management and maintenance of the new hard surfaces and furniture throughout the application site as illustrated on the documentation produced by Exterior Architecture.

11.2. Conservation Objectives

Specific Objectives

To maintain the condition of all hard surfaces in a clean and safe condition.

To maintain all seating, bollards, litter bins and lighting elements in a clean, sa and operational condition.

To maintain all boundary treatments & edges in clean, safe and oper condition.

11.3. Initial Aftercare and Long-Term Management and Maintenance Procedures

Hard Surfaces

11.3.1. Monthly maintenance inspections will be undertaken whereby litter, debris and leaf litter will be removed, with the addition of snow clearance and de-icing in winter months.

11.3.2. Monthly cleaning will involve either mechanically sweeping or jet washing, as required, to remove surface build-up of atmospheric dust. Removal of chewing gum or other significant marking may be done locally through the use of an approved chemical agent.

11.3.3. Weed or moss growth in paving joints to be treated with an appropriate water-based herbicide. Weeds are not to be pulled out by hand to preserve the bedding course.

11.3.4. In the event of any cracking, disturbance, breakages or damage, paving surfaces will be replaced to match existing surfaces.

Furniture

11.3.5. Inspections will be undertaken on a monthly basis and works undertaken immediately upon identification of any fault.

11.3.6. Any seating, bollards and litter bins that are damaged and are deemed to pose a risk to public safety or are aesthetically not in keeping with the design intent will be replaced.

11.3.7. All litter bins within the non-adoptable areas are to be inspected and emptied weekly.

11.3.8 . Chewing gum may be removed using an approved chemical agent. Other significant marks such as permanent markers and spray paint are to be removed using an approved chemical agent to manufacturer's recommendations. Any surface coatings or finishes that are compromised by the marks are to be repaired.

11.3.9. Damage to lighting units that are deemed to pose a risk to public safety, are not functioning, or are aesthetically not in keeping with the original design intent to be repaired or replaced by a suitable qualified contra Replacement units must be of the same specification as the original unit.

Wildlife Enhancements

11.3.10 . The integration of bird and bat boxes into the proposed residential dwellings will provide further opportunities for these species, thereby increasing the faunal biodiversity and ecological appeal of the application site.

12. Timetable of Works

12.1. Table 12.1 below provides a schedule of work for the first ten years following establishment. The locations and spatial distribution of the different habitats are shown on Plans ECO2a and ECO2b and Exterior Architecture's Site Wide GA Plan, Planting Plan Sheets 1 to 12, Planting Schedule and Landscape Report.

Table 12.1. Timetable of works.

Habitat	Action	Timing
Woodland	Planting	Planting of new trees will be undertaken during the autum winter or spring.
	Monitoring	Required every six months for the first two years to ensu that the trees are healthy and not diseased, damage dead. After the first two years, trees can be ins annually if found to be establishing well. Any failed trees wi be replaced in early spring or late autumn.
	Steaking	All trees will be triple-staked with a timber cross bar and soft string ties and be protected with 600mm spiral F biodegradable guards. When no longer necessary, typicall after three to five years, these guards and stakes ma removed from the planting.
	Watering	Required during periods of drought for no less than the fir three years after planting to ensure satisfactory establishment.
	Litter	To be removed as necessary.
	Pruning	Arboricultural management will be carried out by a qualified arboriculturist outside the bird nesting season (Ma – August inclusive) to avoid any potential offence, or w this period only after a SQE has undertaken checks to ensure no nesting birds are present. Emergency pruning w undertaken immediately after a critical fault is identified. An basal or epicormic growth shall also be removed. Thinning may occur, as necessary, to allow for th development of an understorey / ground flora.
Individual Trees	Planting	New tree planting should occur during autumn, wint spring prior to, or within 12 months, of the completion of th development.
	Monitoring	Inspections will occur every six months for the first two year to ensure that the trees are healthy and not diseas damaged, or dead. After these first two years the trees c be inspected annually if found to be establishing well. A failed trees within the first five years will be replaced in earl spring or late autumn.
	Steaking	All trees will be triple-staked with a timber cross bar and soft string ties and be protected with 600mm spiral F biodegradable guards. After three to five years, guards and stakes may be removed. Trees planted within grassland may be fitted with mower / strimmer guards a preventative measure against damage.

	Watering	Individual trees will be watered during periods of drought fo no less than the first three years after planting to er satisfactory establishment.
	Mulching	A 500 mm radius circle of bark mulch (75mm settled dep will be maintained around the base of each tree. This mulc will be replenished every six months, as necess maintain the desired depth.
	Litter	Litter and debris will be removed as necessary.
	Pruning	To be carried out by a qualified arboriculturist outside th bird nesting season (March – August inclusive) to avoid any potential offence, or within this period only after a SQE h undertaken checks to ensure no nesting birds are pres Emergency management will be undertaken immediately after a critical fault is identified.
Hedgerows	Planting	New hedgerow planting should occur during autumn, wint or spring prior to, or within 12 months, of the completion the development.
	Inspections	Inspections will occur every six months for the fi years, after which hedgerows can be inspected annually found to be establishing well. Any sections of hedg found to have failed will be replaced in early spring or autumn.
	Watering	Watering will be required during periods of drought fo less than the first three years after planting to satisfactory establishment.
	Litter	Litter and debris around / within the hedgerows removed as necessary.
	Pruning	To be carried out annually outside the bird nesting seas (March to August inclusive) to avoid any potential offence, o within this period only after a SQE has undertaken checks t ensure no nesting birds are present. Retained hedgerows will be laid on rotation, if required encourage greater structural diversity and preve formation.
Grassland	Seeding	New grassland seeding should occur as per manufacturer guidance during autumn, winter or spring prior to, or wit 12 months of the completion of the development.
	Monitoring	Bi-monthly monitoring visits are required for the firs years. Where found to have deteriorated, the same seed mix will be reapplied in the next suitable season.
	Watering	To occur as necessary during periods of drought to ensu satisfactory establishment. And the maintenance of healtl plant growth.
	Litter	To be removed as necessary.
	Cutting	**Emorsgate EM2F Standard General Purpose Wild Flowers and Emorsgate RE3 Water Meadow:** **Year 1:** To be mown regularly throughout the f year of establishment to a height of 40-60mm in order to control annual weeds and help mai balance between faster and slower devel

		species. Cuttings will be removed, if dense residual perennial weeds are to be carefully dug ou or spot treated. **Year 2 onwards:** To be cut a single time to a swar height of 50mm after flowering in July or Au The cuttings will then be left to dry and shed se for 1-7 days, after which they will be retained as 'habitat piles' in suitable locations to encou common reptiles. **Emorsgate EW1 Woodland Mixture:** In young or open woodland with higher light lev this mix should be cut annually in mid-summer until the tree cover has established. **Emorsgate EL1 Flowering Lawn Mixture and Emorsg EL1F Wild Flowers for Lawns:** **Year 1:** Newly sown lawns should be mown every 7-10 days during the growing season of the first ye to a height of 40-60mm. Residual perennial weeds will be carefully dug out or spot treated. **Year 2 onwards:** To be mown regularly to a heigl of 25-40mm. Management to be relaxed from l June for 4-8 weeks to allow for flowering (mowi may be suspended earlier to allow for Cowsl flower). Heavy quantities of cuttings sho collected and removed from site.
Introduced Shrubs	Planting	New planting should occur during autumn, winter or sprir prior to, or within 12 months of, the completion of t development.
	Monitoring	**Year 1:** Inspections will occur monthly to ensure tha planting is healthy and not diseased, damaged, or dead. **Year 2 onwards:** Inspections will occur bi-monthly if th planting found to be establishing well. Any intr shrubs found to have failed within the first five years will replaced with the same species to the same specifica and maintained for a subsequent five years.
	Mulching	Introduced shrubs will be surrounded by a layer o mulch approximately 75mm deep from the time of planting. This mulch will be replenished every six m necessary, to maintain the desired depth.
	Removal of Overly Dominant Species	Species found to be spreading vigorously and impa other species' establishment or success will be divided wi the excess plant material removed from the site. To oc on an as needed basis.
	Weeding	Monthly hand removal of undesirable species. The us pesticides (herbicides, insecticides, fungicides, and pellets etc.) will be avoided.
	Pruning	Deadheading of herbaceous plants will be unde following flowering and when flower heads have died off

		an annual basis between August and November (dependin on the species). All arisings are to be removed. The dead stems of grasses and perennial species from the previous summer's growth will be cut back after the wir period (mid to late March) annually. All arisings are t removed and disposed of off-site.
	Watering	As required during periods of drought to avoid death of t planting for no less than the first three years after planting t ensure satisfactory establishment.
	Litter	Litter and debris will be removed as necessary.
Attenuation Features	Seeding / Planting	Planting / seeding will be undertaken during the autumn, winter or spring.
	Monitoring	Bi-monthly monitoring visits are required for the firs years. Where found to have deteriorated the same speci / seed mix will be replanted / reapplied in the next suita season.
	Watering	Required during periods of drought to ensure satisfact establishment.
	Litter	Litter and debris will be removed as necessary.
Hard Surfaces / Furniture	Monitoring / Cleaning	Monthly inspections will occur whereby any litter, de , leaves, dust and chewing gum are removed.
	De-icing	As needed during the winter months.
	Weeding	To be removed using a water-based herbicide monthly, a necessary.
	Damage	Damaged surfaces to be replaced as necessary.
	Litter	Bins are to be emptied weekly.

13. Implementation and Funding

13.1. Redrow Homes has ultimate responsibility for implementation of this LEMP.

13.2. It is the responsibility of Redrow Homes to instruct appropriate experienced contractors to establish the various features and habitats proposed and also the responsibility of Redrow Homes to instruct appropriate experienced ecologists and / or landscape contractors to check the work.

13.3. Clear channels between these parties and their associates on the ground will be in operation at all times, by email and telephone as appropriate.

13.4. Redrow and the landowner will establish a joint management company to manage and maintain the public landscape areas of Great Wilsey Park. The management company will be responsible for the ongoing maintenance of areas of so landscaping within public open spaces, attenuation basins and Great Field Plantation.

14. Monitoring and Remedial Measures

14.1. A separate comprehensive Biodiversity Monitoring Strategy (BMS) has been prepared for this RMA. That document should be referred to for full details of monitoring of newly established habitats and features.

14.2. The monitoring of habitats will be completed every year for the first five years. The results of this monitoring work will be fed back into the evolution of this strategy, to adjust the approach to management where necessary, to ensure that the development still delivers the defined aims and objectives.

15. Information Strategy

15.1. New residents will be provided with an information pack setting out the value of the various retained and proposed habitats and features within the Redrow site. This will be provided at occupation. The information pack will set out the wildlife interest of the application site, with the text to be included shown in Appendix 1.

15.2. Two information and interpretation boards produced by an appropriately qualified professional will be provided in key locations within the green infrastructure, setting out the wildlife interest of the site and how residents and visitors can find out more. The text to be included on these boards, which is shown in Appendix 2, is to be complemented by illustrative material. These are to be provided as part of the Infrastructure RMA rather than the Residential RMA.

15.3. The precise text and locations will be agreed with West Suffolk Council, with the boards installed prior to first occupation of the new development.

16. Conclusion

16.1. Ecology Solutions was commissioned by Redrow Homes in March 2023 to prepare materials to address the requirements of planning conditions for the development of Parcels A3 and A5 at Great Wilsey Park (Planning Application Reference: DC/ 15/ 2151/ OUT).

16.2. Condition 7 requires that a LEMP be submitted and approved p commencement of development. This condition states:

No development shall commence within any phase or reserved matters application until a Landscape and Ecological Management Plan (LEMP) for that phase or reserved matters application has been submitted to and approved in writing by the loc planning authority. The content of the LEMP shall include the following:

a) Description and evaluation of features to be managed including all new and existing woodland and coppiced areas, tree and shrub belts, field margin compensatory habitat, new and existing hedgerows and gapping up of existing areas of grassland, meadow and hedgerow margins with intended management regimes, those parts of the site that contain notable plant species recorded on the site, watercourse margins, attenuation ponds and associated features.
b) Ecological constraints on site and how these influence management.
c) Aims and objectives of management.
d) Appropriate management options for achieving aims and objectives.
e) Prescriptions for management actions.
f) Preparation of a work schedule (including an annual work plan capable of being rolled forward over a five-year period).
g) Details of the body or organisation responsible for implementation of the plan.
h) Ongoing monitoring and remedial measures.
i) Strategy for the provision of information about sensitive habitats through a variety of outlets such as interpretation boards, new resident information packs.

The management plan for the existing Great Field Plantation woodland must include monitoring of public use of the woodland such that the design of pathways, fencing, hedging and other management operations are iterative, with the aim that woodland design reflects the needs of the new community. Control of litter and dog waste (within normal refuse collection) can be part of this iterative process. Th management plan should identify areas for coppicing to encourage understore development.

The LEMP shall also include details of the legal and funding mechanism(s) by which the long-term implementation of the plan will be secured and the management body(ies) responsible for its delivery. The plan shall also set out (where the results fr monitoring show that conservation aims and objectives of the LEMP are not being met) how contingencies and/or remedial action will be identified, agreed and implemented so that the development still delivers the fully functioning biodiversity objectives of the originally approved details.

The development shall be undertaken in accordance with the approved LEMP. All elements of the mitigation strategy shall be implemented in accordance with th approved details.

Reason: To ensure the satisfactory development of the site and that wildlife habitats and protected species are considered as part of the design process and are not affected adversely by the development.

16.3. New habitats to be created with wildlife in mind include woodland, individual trees, hedgerows, amenity and wildflower grassland, introduced shrub, SuDS and swales, with these to bolster and be managed alongside the retained trees, hedgerows and ditches. Over time, as the habitats establish and mature, opportunities for wildlife within the site will be enhanced, gradually improving the ecological value of the application site.

16.4. Overall, it is considered that, by following the management, mitigation an enhancement recommendations in this report, the proposed development will succeed in delivering a mix of high quality native and non-native habitats of benefit to wildlife.

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Plans

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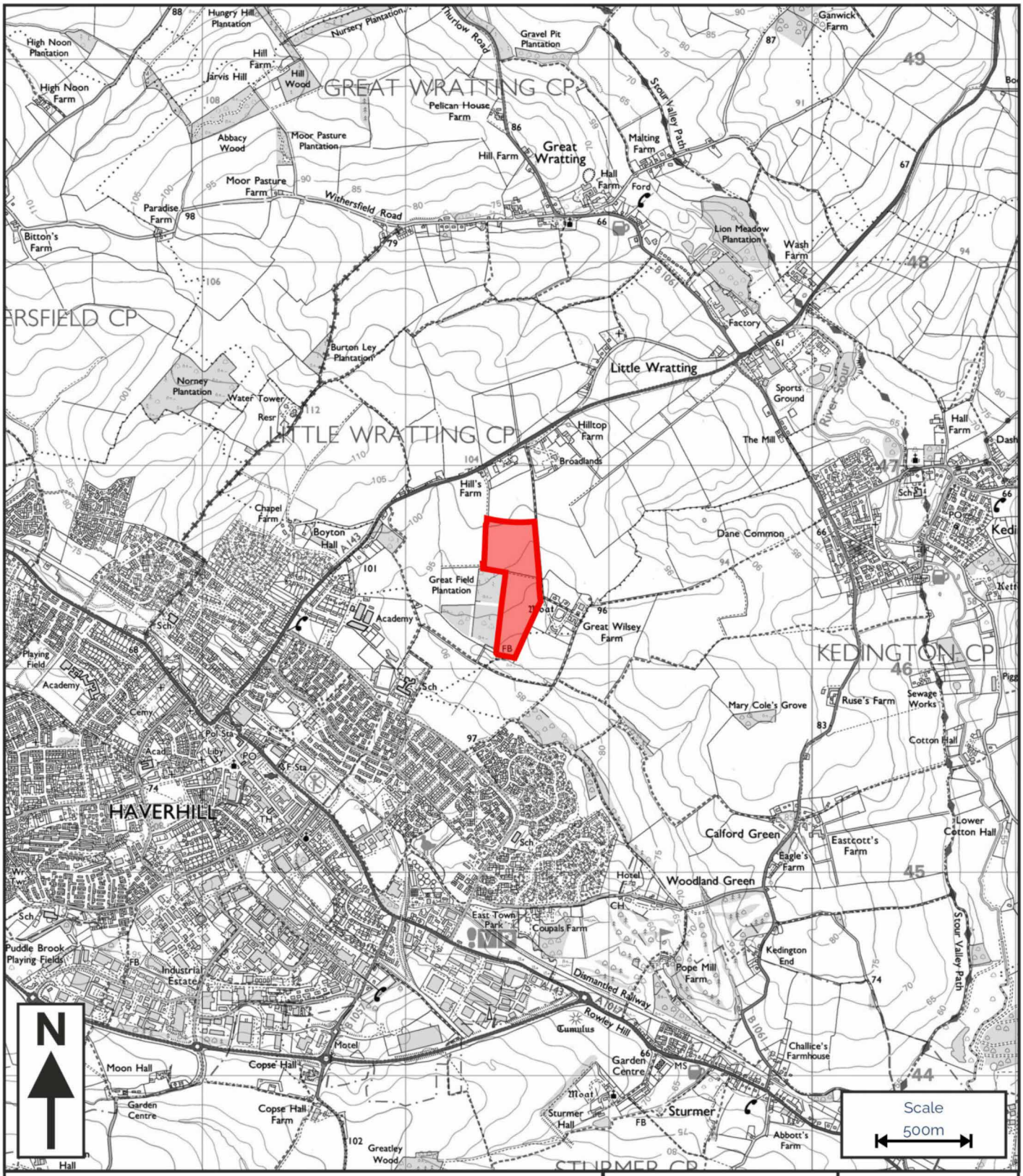
PLAN ECO1

Site Location



KEY:

SITE LOCATION

ECOLOGY SOLUTIONS
LANDSCAPE, MITIGATION & BIODIVERSITY
A PHENNA GROUP COMPANY

Cokenach Estate
Barkway | Royston
Hertfordshire | SG8 8DL

info@ecologysolutions.co.uk
www.ecologysolutions.co.uk

11409: PARCELS A3 AND A5, GREAT WILSEY PARK, HAVERHILL

PLAN ECO1: SITE LOCATION

Rev: A

Jun 2025

ECOLOGY SOLUTIONS
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PLAN ECO2

Landscape and Ecological Management

Any pruning will be undertaken outside of the breeding bird season (March to August inclusive), or within this period only after a suitably qualified ecologist has undertaken checks to ensure that no nesting birds are present.

New tree, hedgerow scrub and woodland planting will ensure that foraging potential for bats, birds and Hedgehogs is maintained onsite.

All vegetation will be watered as required during drought conditions to avoid death.

Other neutral grassland will elevate opportunities for common invertebrate species, with this subsequently improving food resource for bats.

Litter to be removed, as necessary.

Introduced shrubs and individual trees will be surrounded by a layer of bark mulch approximately 75mm deep from the time of planting. This mulch will be replenished every six months, as necessary, to maintain the desired depth.

The landscaping will ensure the provision of green infrastructure and connectivity across site aiding dispersal for faunal groups.

Trees will be triple-steaked with a timber cross bar and soft string ties and will be protected with 600mm spiral Rabbit biodegradable guards.

Planting and seeding will be undertaken during the autumn, winter or spring.

Hard surfaces and furniture will be subject to monthly inspections Any litter, debris, leaves, dust and chewing gum observed will be removed.

Introduced shrubs found to be spreading vigorously and impacting other species' establishment or success will be divided, as necessary, with the excess plant material removed from the site.

Wildflower meadow seeding will be mown regularly throughout the first year to a height of 40-60mm in order to control weeds and help maintain balance between faster and slower developing species. From year 2 onwards, this habitat will then be cut a single time to a height of 50mm after flowering in July or August. The cuttings will then be left to dry and shed seed for 1-7 days, after which they will be retained as 'habitat piles' in suitable locations to encourage common reptiles.

Amenity grassland will also be mown to a height of 40-60mm during the first year after establishment, however, from year 2 onwards, this habitat will be mown regularly to a height of 25-40mm. Said management will be relaxed from late June for 4-8 weeks to allow for flowering and heavy quantities of cuttings should be collected and removed from site.

KEY:

- SITE BOUNDARY
- MANAGEMENT MEASURES
- ECOLOGICAL ENHANCEMENTS

Scale 50m

N

Based on the Site Wide General Arrangement Plan by Exterior Architecture. Drawing Number: 1868-EXA-A3-ZZ-00001, Revision: P01

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11409: PARCELS A3 AND A5, GREAT WILSEY PARK, HAVERHILL

PLAN ECO2: LANDSCAPE AND ECOLOGICAL MANAGEMENT

Rev: A

Jun 2025

Appendices

APPENDIX 1

Homeowner Information Pack Details

APPENDIX 1: HOMEOWNER INFORMATION PACK DETAILS

Great Wilsey Park supports a mosaic of natural and semi-natural habitats including woodland, hedgerow, grassland and wetland habitats. This mosaic of habitats is important for wildlife such as bats, birds, dormice, hedgehogs, reptiles and invertebrates that use these features for food and shelter.

As well as being home to wildlife, these habitats form the public open space for Great Wilsey Park and are there for residents to enjoy.

Woodland and Hedgerows

Great Wilsey Park supports a network of interconnecting woodland parcels and species-rich hedgerows. These features act as highways for wildlife to navigate their way across the site.

Great Field Plantation was first created by planting row after row of coniferous trees. We are introducing more variety by removing coniferous trees, planting more broad-leaved trees and preserving and creating clearings. These changes will help attract more wildlife to Great Wilsey Park.

Grassland

Once a series of arable and improved grassland fields, the Linear Park and Great Field Meadows now support wildflower meadows that will evolve year by year, and get more species rich. The flowering plants will encourage pollinators such as butterflies, bees and hoverflies.

Wetland

We have created new wetland habitats at Great Wilsey Park that will benefit many animals here. Wetter areas of grassland will allow new plant species to flourish. New ponds and ditches will give insects and amphibians (including Frogs, Toads and Newts) places to breed, while creating new food sources for reptiles, birds and mammals.

Please look out for the Wildlife Information Boards when making use of the open spaces for more information on the fascinating wildlife that call Great Wilsey Park home.

Protect Public Spaces

It is important to use areas of public space responsibly to help protect the environment and local wildlife. Some ways you can do this is by:

• Take your litter home with you.

• Only have BBQs where signs say you can and do not light fires.

• Keep dogs on leads when in sensitive habitats, keep them under control, insight and on paths.

• Bag and bin dog poo as waste can cause illness to people, livestock, and wildlife.

• Do not cause damage or disturbance. Leave rocks, stones, plants, trees as you find them and take care not to disturb wildlife.

• Stay on marked paths.

Protect Wildlife from Your New Home

There are many things you can do in your new garden that will help local wildlife.

• Hedgehog Highways – the pre-cut 13x13cm hedgehog tunnels in your garden fences allow hedgehogs to move around the estate so please leave them.

• It is recommended to keep cats inside at night and during the bird nesting season to help reduce hunting pressure on wildlife.

• Planting nectar rich plants can help a range of invertebrates including bees and butterflies.

• Including a pond or water feature in your garden can provide habitat for amphibians and invertebrates.

• Building a bee hotel or hedgehog house.

• Creating woodpiles and compost areas can provide habitat for a range of invertebrates, reptiles, and amphibians.

• Leaving your lawn to grow throughout spring months will help a variety of mini beasts and birds.

For more information

If you are interest in finding out more about how you can protect your local wildlife, have a look at these additional resources:

The Wildlife Trusts:

https:/ / www.wildlifetrusts.org/ gardening

https:/ / www.suffolkwildlifetrust.org

The RSPB:

https:/ / www.rspb.org.uk/ birds-andwildlife/ advice/ gardening-for-wildlife/ creating-a-wildlifefriendly-garden/

The Countryside Code:

https:/ / www.gov.uk/ government/ publications/ the-countryside-code/ the-countryside-code-advice-for-countryside-visitors

APPENDIX 2

Interpretation Board Information

APPENDIX 2: INTERPRETATION BOARD INFORMATION

Woodland and Hedgerows

Great Wilsey Park supports a network of interconnecting woodland parcels and species-rich hedgerows. This network of habitats is important for wildlife such as bats, birds and Hedgehogs that use these features as highways to navigate their way across the site.

Great Field Plantation was first created by planting row after row of coniferous trees, meaning they produced needles and cones, rather than leaves. We are introducing more variety by removing coniferous trees, planting more broad-leaved trees and preserving and creating clearings. These changes will help attract more wildlife to Great Wilsey Park.

Still Standing

You may spot a few dead trees in the woodland. While they may not produce any needles or leaves, they are still playing a crucial role in the woodland as many insects rely on them for a good meal. They can be a good place to spot Fungi, too!

What to Spot

1. On summer evenings look out for bats feeding on small insects such as midges and flies around the woodland edges, hedgerows and ponds. There are 17 species of bat known to breed in the UK, with this group of animals representing over a quarter of our native mammal species. Bats in the UK are nocturnal animals meaning they are most active at night, but will emerge around sunset. In order to efficiently catch such small prey in the dark, bats have evolved the ability to echolocate, a process which works like a sonar system and allows bats to build a 3D picture of the world in front of them.
2. During daylight hours, bats will return to their home – known as a roost - to sleep. These roosts come in many shapes and sizes. They could be a dis-used woodpecker hole or a split branch in a tree, to a cave or even a loft void within a house! Alongside the natural roosts present within the site, we are installing some bat boxes to provide alternative homes for bats present in the local area.
3. One of the rarest species at Great Wilsey Park is the secretive **Dormouse**. It can be difficult to see this nocturnal species, but if you look closely in the hedgerows and trees you may see a ball shape nest woven from grass and leaves.
4. There's more to a wood than its trees. We have planted smaller shrubby species to help provide food for **Dormice** and create shelter for animals passing through. This includes **Hedgehogs**, which can travel large distances looking for food and mates.

Veteran Tree

All ancient trees are veteran trees, but not all veteran trees are ancient trees!

The veteran English Oak tree at Great Wilsey park is a similar age to the other mature English Oaks you will see at the boundaries of Great Field Meadow, which are believed to be between 100 and 200 years old. These trees are certainly old but compared to the oldest recorded Oak trees in the UK thought to be over 1,000 years old, they are still relatively young.

This veteran English Oak tree might not look like much and has unfortunately been the victim of vandalism, but it supports habitat niches such as holes, cavities and crevices that are especially important to wildlife such as invertebrates.

As well as providing ecological benefits, veteran trees can also be important components to the landscape for their social, cultural and historic value.

Grassland

Once a series of arable and improved grassland fields, the Linear Park and Great Field Meadows now support wildflower meadows that will evolve year by year, and get more species rich. The flowering plants will encourage pollinators such as butterflies, bees and hoverflies.

What to Spot

1. Often seen warming itself up in the sun, the **Common Lizard** is unique among British reptiles, being only one of two species that give birth to live young, rather than laying eggs.
2. Identified by its greenish colour, with yellow and black collar, the **Grass Snake** is our largest snake. Don't worry if you find one though, they are completely harmless! Look out for **Grass Snake** basking in the sun near the attenuation ponds, or swimming in the water where they hunt amphibians and fish.
3. Keep any eye out for bird boxes across Great Wilsey Park. Most can be seen in trees and will be used by a range of birds, but two towers have been installed especially for **Swifts** in areas of open grassland. After taking flight Swifts can stay in the air for months on end – potentially as long as two years after they first leave the nest!

Wetland

We have created new wetland habitats at Great Wilsey Park that will benefit many animals here. Wetter areas of grassland will allow new plant species to flourish. New ponds and ditches will give insects and amphibians (including Frogs, Toads and Newts) places to breed, while creating new food sources for reptiles, birds and mammals.

Frog or Toad?

While often confusing to tell apart, Common Frogs have smooth skin that can vary in colour and pattern, whereas Common Toads have rough, warty skin by comparison. Frogs are also more likely to leap about than toads, which prefer to walk.

What to Spot

1. There are three newt species native to the UK. Look out for small, brown amphibians in the ponds at Great Wilsey Park, as you may spot a **Smooth Newt** or a **Palmate Newt**. They look alike, but the palmate can be identified by their webbed back feet (males) and spotless chin (females).
2. The banks of the attenuation ponds have been designed to include berms and ledges, features that are favoured by [redacted] a species we are hoping will colonise Great Wilsey Park in future years.
3. We hope to provide a good home for aquatic invertebrates with our new wetland habitats at Great Wilsey Park. Look out for metallic dragonflies sunning themselves on bank side vegetation and diving beetles in the ponds.

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